

SOUTHWEST ALASKA
TRANSPORTATION PLAN

PRELIMINARY ASSESSMENT OF
POTENTIAL FINANCIAL RESOURCES

TECHNICAL MEMORANDUM

prepared for the
Alaska Department of Transportation and Public Facilities

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INTRODUCTION

This technical memorandum sets out a preliminary assessment of financial resources with which to support the transportation alternatives developed in the course of the Southwest Alaska Transportation Plan effort.¹ It considers local, regional, state, and federal funding sources—from raw fish taxes to the federal gas tax. Included in this discussion is the recently reauthorized federal surface transportation funding legislation, known as TEA-21.² Consideration is also given to innovative funding strategies including public-private partnerships.

While the federal government is the major source transportation funding in Alaska, it is the Alaska Department of Transportation and Public Facilities (DOT&PF) that prioritizes, arranges, and administers the vast majority of capital projects. In addition, the state pays for maintenance and operations for state roadways, most Alaskan airports, and the marine highway system. The resources necessary to accomplish these objectives are considerable.

DOT&PF, along with other state agencies, is under particular duress given the state's \$1 billion budget shortfalls for FY 1999 and 2000, due to the precipitous drop in worldwide oil prices. About three quarters of the state General Fund budget comes from oil taxes and royalties. In addition to budget cuts, austerity measures, and restrictions aimed to avert the short-term crisis,³ Governor Tony Knowles, now in his second term, is working to develop a more diversified, stable revenue base, "rather than just be on the caboose of the oil price train and get whipped around." (*Anchorage Daily News*, January 14, 1999).

The element of the Governor's plan to balance the state budget most directly related to transportation is a proposed motor fuel tax increase. This proposed tax increase, which would apply to gasoline and diesel, but not aviation fuels, would raise the state's gas tax from 8 to 17 cents a gallon. Alaska's current motor fuels tax is the nation's lowest; even with the increase to 17 cents a gallon, it would rank as the country's sixth lowest. (Dennis Poshard, special assistant to the Transportation Commissioner, personal communications, January 12, 1999). A key provision of the Governor's gas tax increase proposal is the stipulation that proceeds from this tax be tied to transportation expenditures.

¹ This technical memorandum relies to some extent on work performed by KJS & Associates, Inc. on behalf of the Alaska Department of Transportation and Public Facilities for the *Southeast Alaska Transportation Plan*. Where applicable, material from the original Southeast report has been used, although many changes in organization, content, and graphics have been made to update the work and to reflect conditions particular to the Southwest region. Substantial reliance on this earlier work was specifically negotiated in the project Scope of Work in order to avoid duplication of effort.

² TEA-21 is an acronym that stands for Transportation Equity Act for the 21st Century. Its predecessor was ISTEA, the Intermodal Surface Transportation Efficiency Act.

³ "Alaska's budget, which has been cut \$247 million since 1995 would continue to be reduced as Knowles directs state departments to achieve more efficiencies and consolidation in delivery services. According to the National Governor's Association, Alaska is the only state to have cut its budget over the past four years, despite population increases. At the same time, all other states, including 35 with Republican governors—increased their budgets an average 22 percent." State of the State Talking Points, January 21, 1999, "Balanced Budget Plan Keeps Economy Healthy," gov-list@list.state.ak.us.

Despite the scale and complexity of DOT&PF's responsibilities, it is important to note that DOT&PF's autonomy is more limited than that of most state departments of transportation because Alaska dedicates no revenue source to transportation purposes.⁴ In fact, any such dedication is constitutionally prohibited. As such, Alaska's Legislature retains an unusual degree of control over the state's transportation programs and priorities.

Whereas most states have established highway trust funds, supported by state gas taxes, motor vehicle excise taxes, licensing fees, and other transportation-related user fees, transportation projects and programs must compete each year for General Fund appropriations with other pressing social and infrastructure needs, including education, health, and utilities. State revenue shortfalls, resistance to increased taxes, and constant legislative scrutiny mean that the pressure is on DOT&PF as never before to find ways to reduce its operating costs, secure the state match for federal funds, and meet growing demand for transportation facilities and services.

OVERVIEW OF ALASKA'S TRANSPORTATION SYSTEM AND FUNDING SOURCES

Alaska's transportation system includes surface transport (rail, highway, and marine modes) and air. Federal monies (from a multitude of agencies) are the single most important source of funding for capital improvements. Statewide, by far the largest portion of funding is provided for surface transportation, which was recently reauthorized as the Transportation Equity Act for the 21st Century (TEA-21). TEA-21 contains funding for the six-year period from 1998-2003. Its predecessor, ISTEA, covered the period from 1991-1997. TEA-21 encompasses programs administered by the Federal Highway Administration (FHWA), Federal Railroad Administration, and the Federal Transit Administration (FTA). In 1996, it accounted for about 75 percent of total federal funding (ISTEA). Federal funding for air transportation, which the Federal Aviation Administration provides through the agency's Airport Improvement Program (AIP), accounted for about 21 percent of Alaska's federal aid in that year. The remaining 4 percent of federal funding came through the U.S. Army Corps of Engineers (COE) for ports and harbor projects.

Statewide, the largest source of federal funding for surface transportation facilities and services has been from the Highway Trust Fund. Under ISTEA, appropriations to Alaska totaled \$1.36 billion over the period 1992-1997, or an average of \$227.1 million per year.⁵ Under the recently passed TEA-21, Alaska did quite well. Under TEA-21, Alaska's apportionment from the Highway Trust Fund rose from 1.166 percent to 1.191 percent, while the overall pot from which this share is drawn also increased. The bottom line is that Alaska's authorized federal apportionment has increased by over 47 percent. However, since Congressional appropriations for transportation programs are generally lower than the amount authorized, DOT&PF anticipates an incremental, rather than large increase in federal funding levels.

Federal aviation funding is disbursed under the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP). Congress funded the AIP for half of fiscal year 1999 as opposed

⁴ Currently, the state's only source of dedicated revenue is the International Airport Revenue Fund, a sub-fund of the General Fund, which supports operation and maintenance of Alaska's two International Airports. There are other sub-funds that are typically used to support DOT&PF operating programs, including the AMHS Fund and Highway Equipment Working Capital Fund. However, these are not *dedicated* funding sources. Revenues from various fees, charges, and taxes go into the General Fund and are typically appropriated back to DOT&PF as program receipts with which to operate specific programs.

⁵ Although these figures represent the distribution of spending authority according to formulas established in authorizing legislation, they do not reflect obligation limitations—the ceiling on the amount of obligations that can be incurred each year. In 1997, the obligation limitation was 87.3 percent of total appropriations to the state.

to the usual full year funding. A two-month extension of the AIP was signed into law by the President on March 31, 1999. AIP funding to Alaska has averaged around \$63 million a year over the period from 1991 to 1997, although the FAA's Alaskan Region Airports Division issued \$45 million in AIP grants for the first six months of FY 1999. This compares with \$81.2 million issued for all of FY 1998 (http://www.tc.faa.gov/NM/news_releases/aal/99-34). Two other federal programs, the Essential Air Service Program (EAS), administered by the Federal Aviation Administration, and Bypass Mail program administered by the US Postal Service constitute two other important (although indirect) sources of support for Alaskan air service. EAS in Alaska, which is funded through the FAA, costs the federal government \$1.9 million a year. Bypass Mail in Alaska, which is administered by the US Postal Service (USPS), costs the federal government over \$95 million a year. Each of these funding programs is detailed in a subsequent section of this report.

Funding for ports and harbors, upon which Southwest Alaskans, in particular, are dependent for both commercial and transportation purposes, is volatile, because there are so few federal resources devoted to this mode. While the COE funds some navigation projects, the overall levels of funding are quite low—and nowhere near the levels provided for surface transportation or aviation.

TRANSPORTATION PROJECT SELECTION IN ALASKA

In Alaska, similar processes determine the nomination, ranking, and funding of transportation projects, regardless of mode. Typically, nominations are solicited from a broad range of constituencies and compiled into a master "Needs List." Needs List Items are then ranked according to multiple selection criteria. Surface transportation projects, including National Highway System, Alaska Marine Highway System, Community Transportation Program, and Trails and Recreation Access for Alaska projects, are prioritized in the three-year Statewide Transportation Improvement Program (STIP). Top-ranked projects are matched with available funding and scheduled for construction. Aviation projects and port and harbor projects undergo similar processes, although they are not included in the STIP, but listed in separate documents.

Until recently, funding for Alaska's transportation infrastructure was allocated to each of the state's three regional offices, which then determined which projects within each region would be funded. This system was replaced in 1996 with a statewide open project selection process. The DOT&PF explained the reason for the shift to the new project selection process,

Alaska's transportation needs are not well served by this (regionally based) method of allocation as there are no readily identifiable factors that equitably allocate funds on a geographic basis. Measurable parameters such as population, land area, vehicle miles traveled, or existing road miles create one or more imbalances. Using population as an allocation tool fails to consider the need to connect far-flung communities separated by largely unpopulated regions. Using land area as a factor underserves more densely populated areas that need high-level investments in transit, or grade-separated highways. Using vehicle miles traveled or existing road miles is unfair to communities that lack roads or that need buses or ferry service. Alaska's extremes of climate and landscape and vast expanses require that large segments of the population rely on ferries, winter trails for sleds and snow machines, and other non-conventional means of surface transportation. In this setting it appears that the most equitable allocation method is statewide competition. The key

is balancing the criteria such that projects of greatly different scale and type can be compared (*Statewide Transportation Improvement Program*, 1996-1998, DOT&PF, May 1996).

New project selection criteria were also adopted in 1996, giving priority to projects that include local community/user contributions. Under this new system, projects are initially evaluated at the regional level using statewide criteria. In the next step, the highest-scoring projects are forwarded for evaluation at the statewide level.

FUNDING SOURCES: THE FEDERAL ROLE

SURFACE TRANSPORTATION

The primary funding source for surface transportation projects in Alaska is federal-aid highway funding, which flows through two U.S. Department of Transportation administrations: the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Although some federal funding is provided as a lump sum, most is apportioned to specific programs, including the National Highway System, the Surface Transportation Program, Interstate Maintenance, Bridge, and Congestion Mitigation and Air Quality Improvement (Table 1).

Table 1.
Major Federal Surface Transportation Funding Programs

Apportionment Category	Description	Federal Share
Interstate Maintenance	Resurfacing, restoration and rehabilitation of the Interstate Highway System	93.4 percent
State Planning and Research	Planning, research, statistical measurements, engineer and economic studies and applied research	80 percent
Bridge Rehabilitation and Replacement	Replacement or rehabilitation of substandard bridges with a span of 20' or more on and off the federal system	80 percent
National Highway System	Funding for Alaska 2,100 miles of designated NHS highways, 1,900 miles of ferry routes and eight AMHS vessels	90.7–93.4 percent
Safety	Hazard elimination and railroad crossing and protective devices based on accident history	90 percent–100 percent
Surface Transportation Program	Road construction, resurfacing, etc. and transit projects. Must include 10 percent each for safety and enhancement projects	90.7–93.4 percent
Scenic Byways	Discretionary funds for planning, design, and development of scenic byways on existing designated highways	100 percent
Ferry Boat Discretionary Funds	Construction of ferry boats and/or terminal facilities on NHS routes	80 percent
Elderly and Persons with Disabilities	To private and non-profit agencies for capital improvements and for the provision of transportation services to the handicapped and elderly	80 percent
Nonurbanized Area Formula Program	Public transit activities outside of Anchorage. Includes Rural Transit Assistance Program	50–80 percent

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Apportionment Category	Description	Federal Share
Federal Lands Highway Program	Road improvements on federal lands, including Bureau of Indian Affairs, U.S. Park Service, U.S. Forest Service	NA
Minimum Guarantee	Provides that each state receives a share of the total annual Highway Trust fund apportionments based on the state's estimated gas tax payments. Funding for special projects is included in the calculation, along with other programs and formula funding.	NA
Discretionary Bridge Program	For the replacement or rehabilitation of high-cost deficient highway bridges and for the seismic retrofit of highway bridges	80 percent
Public Lands Discretionary	Provides funding for a coordinated program of public roads and facilities serving federal lands.	100 percent

TEA-21 DISTRIBUTION PROCESS AND MECHANISMS

Nationwide, the six-year, \$218 billion Transportation Equity Act for the 21st Century (TEA-21) authorizes a 40 percent increase in spending over six years from current levels. Alaska's authorization level increased by an even greater percentage: 47.3 percent. However, it must be noted that given low state General Fund revenues due to the funding shortfall that is in turn attributable to low oil prices, the legislature may decide that the match needed for maximum federal funding may not be politically affordable in the short term. The higher overall authorization level was achieved not by raising taxes, but by setting the spending level equal to the previous year's gas tax revenues, and consciously disallowing the diversion of gas tax revenues for deficit reduction. Its supporters point out that even though this level of funding increase is substantial, that the amount authorized is still less than a quarter of what is needed "to improve the condition of aging roads and crumbling bridges, based on a study by the American Society of Civil Engineers" (*Congressional Quarterly* 1998).

A key outcome of the legislation was the adjustment in Alaska's apportionment, which rose from 1.1660 percent to 1.1915 percent. Under various reauthorization proposals, Alaska's reapportionment had ranged from a low of 0.78 percent to a high of 1.301 percent. Of all states, Alaska experiences the highest rate of return on its gas taxes paid. Whereas many pay in more than they get back, Alaska receives over \$5 in federal funding for every gas tax dollar paid in. Given that some had feared that Alaska's 1.166 percent apportionment would fall (KJS 1996), the 2.1 percent increase in apportionment was a very positive outcome for the state.⁶

Since passage of TEA-21, the amount of funding anticipated from both FHWA and FTA programs has increased substantially, as reflected in funding estimates from (1) the *1998-2000 Statewide Transportation Improvement Program* published in February 1998; and (2) the *1998-2000 Statewide Transportation Improvement Program Major Amendment #11*, published in January 1999. Compared to the initial STIP released in February 1998, the STIP Amendment

⁶ The state with the largest gain was Georgia, whose funding leaped by 69.7 percent. Meanwhile, Massachusetts, the only state with a negative change, lost 41.2 percent over its previous ISTEA funding level.

#11 anticipates about 26 percent more money from highway programs and over 37 *times* more funding from FTA sources (due to innovations in the Ferry Boat Discretionary program). The increase in anticipated FHWA funding is shown in Table 2, while the much larger percentage increase in FTA funding is shown in Table 3.

Table 2.
Increased Anticipated FHWA Funding due to TEA-21 Authorization

	Anticipated FHWA Funding Levels 1999	Anticipated FHWA Funding Levels 2000
Initial 1998-2000 STIP Total Federal FHWA Funding Anticipated*	\$313,550,000	\$296,350,000
1998-2000 STIP Major Amendment #11 Total Federal FHWA Funding Anticipated**	\$425,561,200	\$398,666,400
Percent Increase	26.32%	25.66%

The source for these figures is the *1998-2000 Statewide Transportation Improvement Program*, DOT&PF February 1998. "Federal Highway Administration-Assisted Program Fiscal Summary," p. A-1. This figure was derived by subtracting state match from Total Program Funding. **The source for these figures was the *1998-2000 Statewide Transportation Improvement Program Amendment #11* (Major), January 1999, "Federal Highway Administration-Assisted Program Fiscal Summary," p. B-1.

Table 3.
Increased Anticipated Federal Transit Administration Funding
due to TEA-21 Authorization

	Anticipated FTA Funding Levels 1999	Anticipated FTA Funding Levels 2000
Initial 1998-2000 STIP Total Federal FTA Funding Anticipated*	\$520,800	\$520,800
1998-2000 STIP Major Amendment #11 Total Federal FTA Funding Anticipated**	\$19,442,200	\$17,303,100
Percent Increase	3,733%	3,322%

The source for these figures is the *1998-2000 Statewide Transportation Improvement Program*, DOT&PF February 1998. "Federal Transit Administration-Assisted Program Fiscal Summary," p. B-1. This figure was derived by subtracting state and local match from Total Program Funding. **The source for these figure was the *1998-2000 Statewide Transportation Improvement Program Amendment #11* (Major), January 1999, "Federal Transit Administration-Assisted Program Fiscal Summary," p. C-2.

AUTHORIZATION VS. APPROPRIATION

Under ISTEA, about 85 percent of highway authorization was eventually appropriated. Transit, however, did not fare as well, with about 70 to 75 percent of the amount authorized ultimately being appropriated. However, TEA-21 has been crafted to change the relationship between authorization and appropriation in two ways: (1) TEA-21 creates budgetary "firewalls" around transportation funding; and (2) TEA-21 for the first time ties transportation funding levels to

HTF receipts on an annual basis; this is done via a mechanism called Revenue Aligned Budget Authority (RABA). Each of these is summarized below.

TEA-21'S BUDGETARY "FIREWALLS"

In an important departure from ISTEA that is intended to preserve the integrity of critical transportation funding, a substantial portion of transportation spending has been taken "off budget," i.e., it will no longer be subject to the discretionary budget cap governing other non-mandatory spending.⁷ This was accomplished by creating a separate budget category outside the domestic discretionary cap for a significant proportion of federal transportation funding. More simply put, cuts in transportation funding will no longer (or at least to as much of an extent) allow Congress to appropriate more for other discretionary programs, such as education or defense.

Of the \$216.3 billion authorized in TEA-21, \$198 billion has either already been appropriated or is guaranteed to be spent under new provisions that establish budgetary "firewalls" around the federal highway and mass transit programs. The guaranteed spending for highways is \$162 billion, which includes \$157 billion for funds distributed to the states and about \$5 billion for mandatory programs such as emergency relief and minimum allocation. Guaranteed spending for mass transit amounts to \$36 billion of the \$42 billion authorized (Table 4).

Table 4.
TEA-21 Nationwide Transportation Funding Levels
Authorized vs. Funding Levels Guaranteed

	Highway	Mass Transit	Total
Total Authorized	\$175 billion	\$42 billion	\$217 billion
Minimum Guarantee	\$162 billion	\$36 billion	\$198 billion
Percentage guaranteed	92.57%	85.71%	91.24%
Amount beyond minimum guarantee	\$13 billion	\$6 billion	\$19 billion

Assuming that the percentage of authorized funding that Alaska actually gets due to the minimum guarantee is similar to the nationwide percentage, the state can expect an average of \$289 million a year in TEA-21 apportionment funding through the life of TEA-21. Allocations from discretionary programs would raise the total well beyond this minimum guarantee (Table 5).

⁷ Federal spending falls into two broad categories: mandatory and discretionary. Mandatory spending includes Social Security, Medicaid, Medicare, other means-tested entitlements, and a miscellaneous assortment of programs that includes federal retirement and insurance programs, unemployment insurance, and payments to farmers. The fastest growing element of the federal budget by far, mandatory spending accounts for a whopping 68 percent of all federal outlays. Discretionary funding accounts for the remaining 32 percent. Of this 32 percent, defense spending accounts for 15 percent, and all other programs, including transportation, are funded out of the remaining 17 percent. Given that so many needs must be funded out of a relatively small portion of the budget, it is not surprising that transportation priorities have often been sacrificed to Congressional leaders' political agendas. The budgetary firewalls developed in TEA-21 are designed to protect transportation funding by establishing minimum guaranteed levels.

Table 5.
Minimum Guarantee Assumption under TEA-21

Authorized under ISTEA (annual average)	\$211,780,000
Authorized under TEA-21(annual average)	\$311,860,000
Minimum Guarantee assumption under TEA-21 (\$311,860 * 0.9257)	\$288,689,000

RABA

The firewalls established under TEA-21 are structured not only to set most transportation funding aside from the discretionary spending cap, but also for the first time, tie the level of transportation expenditure to highway trust fund revenues. In effect the bar indicating the minimum will rise or fall with fluctuations in HTF revenues.⁸ The mechanism by which such adjustments will occur (for the first time in FY 2000) is called "Revenue Aligned Budget Authority" (RABA). More simply put, the firewall level itself will float with annual fluctuations in HTF revenues. The bar is expected to rise substantially in FY2000, in so far as HTF revenues exceed projections by \$1.45 billion.

The HTF, which was established in 1956 to finance the Interstate Highway System, generates some \$24 billion a year. The largest component of the HTF is the 18.4 cent a gallon gasoline tax. Taxes on diesel, other fuels, tires, truck and trailer sales, and heavy vehicles also flow into the HTF. In the past, outlays from the HTF have been substantially lower than income. While total income over the HTF's history has summed to \$394.3 billion, outlays have amounted to only \$371.8 billion, leaving the HTF with a \$22.4 billion surplus.⁹

Section 110 of Title 23 authorizes contract authority in an amount equal to the additional obligation limitation. Each year, the RABA level will be determined based on new HTF information and revised revenue projections from the Department of Treasury. TEA-21 legislation also specifies how the RABA adjustment is to be distributed. First, a determination is made of the proportion of federal-aid highway program authorization in allocated (non-apportioned) programs versus apportioned programs. Then, based on this split, all allocated programs receive a share of RABA based on their relative proportion of all such programs, including Federal Lands Highway programs, and High Priority projects.

Given that the administrative aspects of this new method have not yet been worked out in practice, it is difficult to predict exactly the amount of Alaska's share. However, it is clear that RABA could substantially increase Alaska's level of federal funding. To make a crude estimate, assuming that Alaska's share of the added RABA funding will correspond in some way to the state's apportionment share under TEA-21, which is 1.191 percent, Alaska stands to gain in the neighborhood of an additional \$17.3 million for FY 2000 (Table 6).

⁸ Congress will of course be free to appropriate transportation funding above and beyond minimum guarantee; however, appropriations in excess of minimum guarantees will be subject to the discretionary spending cap.

⁹ While the HTF must maintain a positive balance to ensure that prior obligations can be met, Congress has acted through TEA-21 to spend part of this balance on much needed transportation improvements. However, a minimum balance of some \$7 billion will remain in the HTF. This "cushion," which is equivalent to about three months worth of expenditures, will ensure that funds are available to reimburse states in any emergency situation.

Table 6.
Minimum Guarantee Assumption under TEA-21 Due to RABA

	Anticipated Funding Level 2000	Plus Possible RABA Increase	Total
Anticipated FY 2000 Total Federal Funding Level (FHWA and FTA)	\$415,969,500*	\$17,269,500	\$433,239,000
Percent Increase due to RABA		4.15%	

* The source for these figures is the *1998-2000 Statewide Transportation Improvement Program*, DOT&PF February 1998. Federal Highway Administration-Assisted Program Fiscal Summary," p. B-1 and "Federal Transit Administration-Assisted Program Fiscal Summary," p. C-2. This figure was derived by subtracting state and local match from Total Program Funding

FERRY BOAT FUNDING

One feature of TEA-21 that is of special interest to Alaska is its provision for ferry boat funding. Two developments in ferry boat funding (in addition to the existing FBD (327) program) under TEA-21 are noteworthy. First, the Federal Highway Administration Ferry Boat Discretionary Program [1207] is intended to fund the construction of ferry boats and terminal facilities. This program continues funding from the Highway Trust Fund, and the federal share remains at 80 percent. Of the \$39 million authorized, \$20 million per year is earmarked for the states of Alaska, New Jersey, and Washington. Alaska's earmark is \$10 million per year, while Washington and New Jersey's shares are \$5 million per year each. Alaska is also eligible to compete for the other \$19 million that is available through the non-earmarked portion of the program. TEA-21 expands eligibility for ferry boats and terminals beyond those that are publicly owned to also include those that are publicly operated or those that are majority publicly owned and that provide "substantial" public benefit.

The second development is FTA's Transit Ferry Boat Program [3009(g)], under which a total of \$14 million a year for FY 1999-2003 is authorized to be set aside from the New Starts program under Transit Capital Investment Grants and Loans for capital projects in Alaska or Hawaii. Hawaii is thought to be unlikely to qualify for this funding until at least 2002. It is likely that DOT&PF will be blending both FTA and FHWA funding for auto and passenger ferries. This blending of FTA and FHWA funding will make project development somewhat more complex insofar as two agencies' administrative requirements and criteria, rather than one, will have to be met.

Federal Lands Programs

Unlike most TEA-21 programs, federal lands monies are not apportioned according to formulas prescribed by Congress. Rather, funds from these programs are allocated administratively. For instance, the Bureau of Indian Affairs (BIA) is given upwards of \$200 million per year, which it distributes to tribes and native organizations across the country according to its own administrative criteria. BIA money can be used under "force account," wherein, essentially, local government acts as general contractor and employs local labor. This is distinct from FHWA funding, which is generally not eligible for use in this manner. Meanwhile, funding from the Public Lands Discretionary Program considers competitive applications on a nationwide basis (Cynthia Bobik, Federal Lands, personal communication, October 14, 1998).

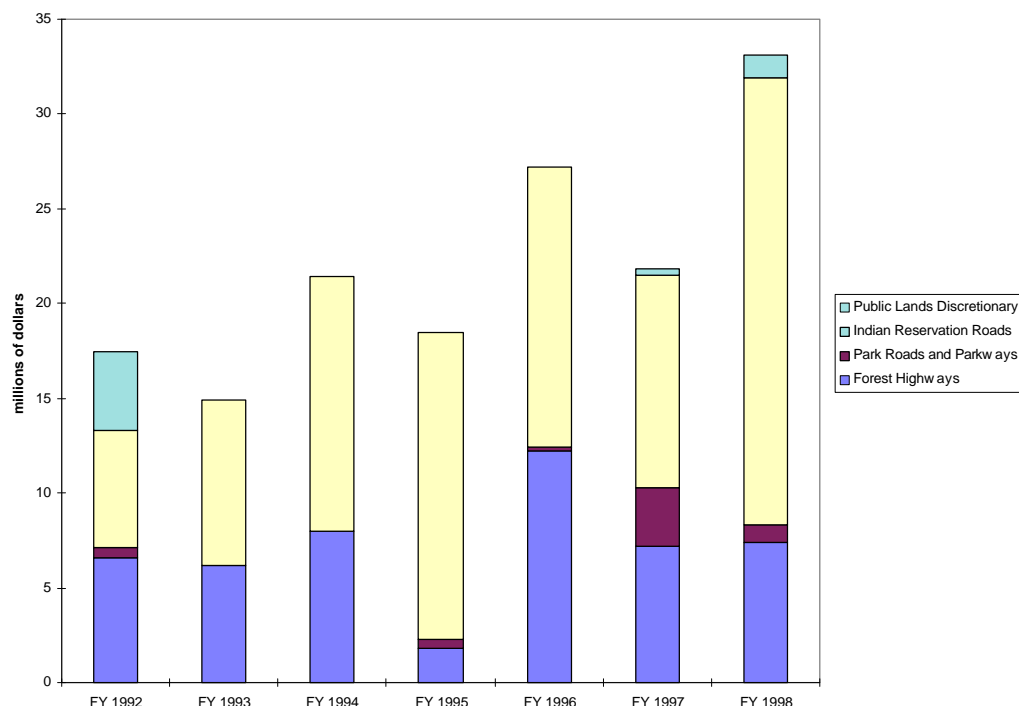
Programs in the Federal Lands Highway Program include the Forest Highway Program, Park Roads and Parkways, Indian Reservations Road Program, Public Lands Discretionary, and

Emergency Relief Programs. Over the past six years, Alaska has received funding fairly consistently from the Indian Reservation Road Program, and the Forest Highway Program but sporadically from others (Figure 1). Overall, funding for the Federal Lands Highway Program is a somewhat unpredictable source of long-term funding, particularly in light of recent political attacks at the national level, labeling the program as “corporate welfare” (Salant 1997).

Preliminary estimates indicate that Alaska will receive about \$16.6 million each in FY’s 1999-2001. Native associations will be actively participating in the establishment of needs and prioritization of projects. There may be opportunities for local communities to work with these associations to provide matching funds for mutually beneficial projects. In the near term, however, it may be difficult to develop such joint projects because of BIA hiring rules and Alaska’s constitutional prohibition against hiring discrimination.

In any case, some changes appear to be underway in the Forest Highways Program. Historically, these funds have been used to improve existing roads on US Forest Service (USFS) land, with an emphasis on upgrading logging roads and turning them over to the state for operation and management. Recently, however, the emphasis appears to be on managing the transportation impacts on land owned by the USFS. For example, the Auke Recreational Bypass (Juneau) is a new route that improves road safety and recreation access on the way to Echo Cove. The USFS is willing to contribute to the road cost because the bypass provides better separation of uses on USFS land by routing traffic away from recreational areas. Project selection for improvements funded with Forest Highways Program monies undergoes a tri-agency process involving the FHWA direct federal office in Vancouver, Washington, the USFS, and DOT&PF. This change is likely a natural progression as timber harvests on federal forest lands decline and as recreational uses are emphasized.

Figure 1.
Federal Lands Allocations to Alaska
1992-1998



Sources: <http://www.fhwa.dot.gov/flh/overview>; <http://www.fhwa.dot.gov/flh/reports/indian/intro.htm>; Cynthia Bobik, Federal Lands, FHWA, personal communications, October 14, 1998.

Special Federal Appropriations

KING COVE'S CONGRESSIONAL APPROPRIATION

A study team of consultants have been working on a King Cove-Cold Bay Transportation Improvement Assessment in conjunction with completion of a Southwest Alaska Transportation Plan for the DOT&PF. As the study team was examining transportation needs in the King Cove and Cold Bay area, Alaska's Congressional delegation took up the issue of improved transportation between the two communities. While that was happening, the study team completed a draft of a "transportation needs" document and a number of other related studies. Congress debated a proposal by Alaska Congressmen that would have created a right-of-way for a road through the Izembek Wilderness, with funding for any such road assumed to come through the standard Federal Highway Administration grant to the state. The reason for pursuing the road right-of-way was for a more reliable alternative to the existing air transportation system. Under an arrangement led by Senator Ted Stevens, Congress appropriated \$37.5 million to address King Cove's pressing transportation problems. The appropriations bills included \$20 million for a road-and-ferry combination; \$15 million for a new or upgraded King Cove airport; and \$2.5 million for medical facility upgrades in King Cove. The study team has continued with its own transportation improvement assessment and is now culminating that effort with a Facility Concept Report (FCR). The FCR will summarize findings of the following reports and studies completed as part of this effort:

- *Assessment of Transportation Need, Draft*, December 1997
- *Available Marine Technologies Technical Memorandum*, April 1998
- *Technical Memorandum: Two Selected Marine Options*, May 1998
- *Port and Shore Facility Requirements Technical Memorandum*, June 1998
- *Airport Improvement Options-Aviation Considerations*, July 1998
- *Roadway Alternatives Technical Memorandum*, Draft August 1998
- *Telemedicine Issues Relevant to King Cove and Cold Bay*, Draft, October 1998.
- *Environmental Issues and Environmental Process*, January 1999.

Where appropriate, the FCR will reflect the options resulting from the Congressional Action. The intent of the FCR is to present factual information on marine, land, and air alternatives, including preliminary cost estimates for construction and for operation and maintenance. The FCR will also present a preliminary statement of purpose and need. The FCR is not intended to compare alternatives, their impacts, or their ability to meet the purpose and need for the project.

The Denali Commission

In another special appropriation, Senator Ted Stevens led Congress in establishing a seven-member Denali Commission¹⁰ the purpose of which is to concentrate the resources of government and private enterprise on the problems of rural Alaska. Jeff Staser, formerly a legislative aide to Senator Stevens will serve as the Commission's first administrator.

According to Governor Tony Knowles, the Commission's mission is broad, and as yet, not clearly defined. "In a broad sense, it will direct itself toward sound economic development in rural Alaska. There is no issue more important to Alaskans." Congress has initially provided the Commission with \$20 million in seed money for use in establishing operations and conducting studies that will determine areas of need. By the end of FY 1999, some observers expect that the Commission will have been provided with up to \$60 or \$80 million for basic infrastructure services including clean water, sewage systems, electric energy, and transportation (*Anchorage Daily News*, February 27, 1999).

The Commission's first appointees were as follow: Julie Kitka, president of the Alaska Federation of Natives; Mark Hamilton, president of the University of Alaska; Mano Frey, executive director of the state AFL-CIO.; Heinrich Springer, executive director of the Associated General Contractors of Alaska; and Kevin Ritchie, executive director of the Alaska Municipal League. According to Staser, the Denali Commission will target areas where unemployment is high and where economic development is hindered by a lack of programs and/or infrastructure (Jeff Staser, personal communications, 1/12/99). These are certainly characteristics of many parts of Southwest Alaska. One important goal of the Denali Commission will be to reduce bureaucratic gaps and inefficiencies by taking the decision making power for a systematic range of infrastructure programs and services out of the hands of federal bureaucrats in Washington, D.C. and put them into the hands of Commission.

¹⁰ The Denali Commission is modeled after the Appalachian Regional Commission which oversees and funds infrastructure and economic development projects across 13 eastern states.

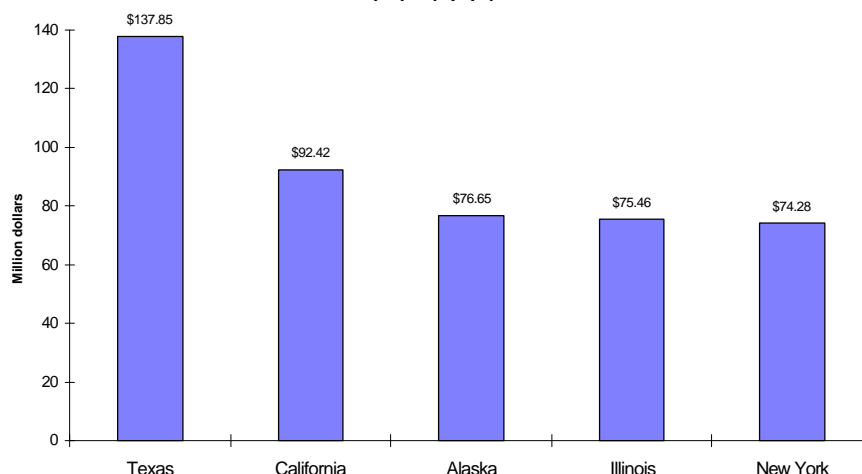
AVIATION

Aviation funding, which is administered through the FAA's Airport Improvement Program (AIP), takes two primary forms; (1) entitlements, which are apportioned to states based on objective criteria established by Congress; and (2) discretionary funding, which is allocated after the entitlement obligations have been met, and in which case airport capital projects compete on a nationwide basis for funding in various categories. Unlike surface transportation spending, which is authorized every six years, federal aviation funding is authorized on a yearly basis.

The AIP is supported primarily through an excise tax on airline ticket sales. AIP money can be used for capital projects, while the sponsor (DOT&PF in almost every case) is responsible for maintenance and operations costs. "In Alaska paying for airport maintenance and operations is more of a concern than funding capital projects" (*Alaska Aviation System Plan Update*, March 1996). The state's role in airport sponsorship is reflected in the selection process for airport capital projects. Project nominations are generated by DOT&PF, which evaluates aviation projects at the regional level, then ranks top regional projects according to statewide criteria. The Aviation Project Evaluation Board (APEB) which is made up of DOT&PF's three regional directors, statewide planning director, and deputy commissioner responsible for aviation, ranks the projects for funding. The APEB process for potential airport projects very closely parallels the PEB process for roads.

Alaska competes quite well compared with other states in terms of the amount of federal aviation funding received, ranking third after Texas and California (Figure 2). Alaska's highest levels of aviation funding reflect the critical importance of air transport to its residents, 30 percent of whom are not served by roads connected to the continental road network. Moreover, Alaska has more airports than most states, and more airports that do not meet national safety standards. The extremely high cost of airport construction in remote and environmentally inhospitable areas of the state is another reason for the state's relatively high funding levels.

Figure 2.
Alaska Ranks Third Nationwide in AIP Funding
FY 1997



Source: "Airport Improvement Program, FY 1997: Number of Grants Awarded and Total Amount," <http://www.faa.gov.aip>

AIP Programs

While some AIP funds can be pooled for flexible use statewide, others can only be used for specific types of projects at specific airports. Between 1992 and 1997, Alaska has received an average of \$49.1 million in entitlement funding per year, and an average of \$15.2 million in discretionary funding.

ENTITLEMENT PROGRAMS

Passenger Entitlements. Primary airports (those serving 10,000 or more enplanements annually) receive funding based on the number of passengers enplaned. These funds can only be used for capital improvements. Of the 47 airports in Southwest Alaska, only five (Cold Bay, Dillingham, King Salmon, Kodiak, and Unalaska/Dutch Harbor) are primary airports.

Cargo Entitlements. Airports that handle at least 100 million pounds of cargo a year receive entitlement funding. None of Southwest Alaska's airports approaches the 100 million pound threshold. In fact, Anchorage and Fairbanks are the only airports in Alaska that receive cargo entitlements.

State Apportionments. Each state receives funding based on state population and area. State apportionment funding can be used at any non-primary airport.

ALASKA SUPPLEMENTAL

Currently 46 large and 124 small airports in Alaska have "grandfathered entitlements" of nearly \$11 million annually. There are not individual entitlements for the grandfathered airports. The entitlements will cease as each airport reaches 10,000 enplanements annually and becomes eligible for passenger entitlements. The grandfathered funding is a percentage of authorization, rather than a fixed amount. No grandfathered airport has an entitlement specific to the airport, and some grandfathered airports may never receive any funding from the supplemental pot. The \$10.7 million pot can be used at the grandfathered airports only, but these airports may also receive Alaska Supplemental funding. Although there is no "expiration date" associated with the supplemental funding, the potential for losing the supplemental funding increases with time. Major factors affecting this are:

- financial pressure, both to reduce federal appropriation levels and by other states to get a larger piece of the pie; and
- changing perspectives regarding unique circumstances in Alaska that require special consideration.

POOLING

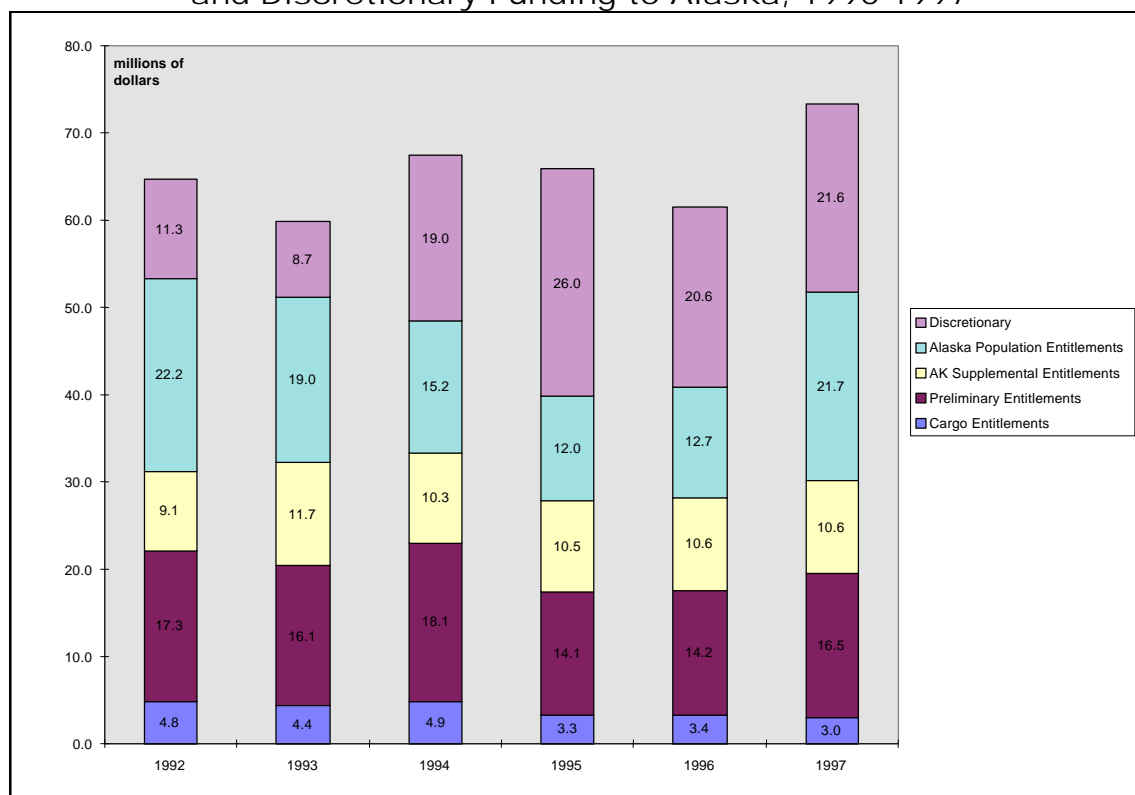
For the most part, monies from the entitlement programs just discussed may be pooled, such that funding "earned" under these programs by any state-owned airport may be spent at any state-owned airport throughout the state. However, there are notable exceptions. Cargo entitlements, for example, must be spent at the airport where they are earned and cannot be pooled. In addition, as a matter of departmental policy, the Primary Passenger Entitlements earned by the Anchorage and Fairbanks international airports are only spent at the airport earning the entitlement—they are not shared with the Rural Airport System. Where the state's "pooled" entitlement money is ultimately spent is a function of project rankings.

DISCRETIONARY FUNDING

Multiple categories of federal aviation discretionary funds are available each year. Projects compete for discretionary funds at the national level within each category. In FY 1997, approximately \$460 million was available for discretionary funding statewide. Only Anchorage International Airport can compete for capacity, safety, security and noise (CSSN) funding made available to the top 100 capacity airports in the U.S. (\$215 million). Alaska's 181 general aviation airports can compete for funds in the Non-commercial Category (\$31 million). There are 25 airports in Alaska that can compete for funding in the non-hub (10,000–293,163 enplanements per year) category (\$62 million). Within Southwest Alaska, these are the airports at Cold Bay, Dillingham, King Salmon, Kodiak, and Unalaska/Dutch Harbor.

Airports with an approved Noise and Land Use Study can compete for funds in the Noise category (\$144 million). There is also a pure discretionary category to supplement other categories. As reflected in Figure 3, Alaska has received between \$4.4 million and \$25.9 million annually in discretionary funding since 1990. Discretionary funds, which are appropriated for specific projects, cannot be pooled.

Figure 3.
Federal Aviation Entitlement
and Discretionary Funding to Alaska, 1990-1997



Essential Air Service

Essential Air Service (EAS) constitutes an *indirect* form of federal aviation funding in Alaska. This federal support takes the form of subsidies negotiated with private air carriers to provide scheduled service to remote communities where such service would not otherwise be

profitable. Were it not for EAS, many Alaskan communities (ten in Southwest Alaska) would probably not receive any scheduled air service, and residents would have to pay more for their chartered passage to major hubs, such as Anchorage. The EAS was created by Congress in 1978, in the wake of airline deregulation. Deregulation gave airlines almost total freedom to determine which markets to serve domestically and what fares to charge for that service. The EAS program was established to guarantee that small communities that have been served by certified air carriers before deregulation would retain at least a minimal level of scheduled air service. The FAA currently subsidizes commuter airlines to serve about 104 rural communities across the country that otherwise would not receive any scheduled air service. In Alaska alone, 27 communities are served, including the Southwest Alaska communities of Nikolski, Atka, and eight bush points on Kodiak Island (Amook Bay, Kitmoi Bay, Moser Bay, Olga Bay, Port Williams, Seal Bay, West Point, and Zachar Bay).

Over the years the Congress and the US Department of Transportation have worked to streamline the EAS program and increase its efficiency, mostly by eliminating service guarantees and subsidy support for communities that are within a reasonable drive of a major hub airport. Currently, communities are not eligible to receive subsidized air service if they are within 70 driving miles of an FAA-designated Large or Medium Hub airport, or if their subsidy per passenger exceeded \$200 (there is an exception from the \$200-per-passenger standard for communities that are more than 210 highway miles from the nearest medium or large hub). The federal EAS budget has ranged from about \$100 million early in the program down to about \$25 million as recently as the last couple of years. Communities in Southwest Alaska receive a federal subsidy level of \$259,413 per year, which accounts for about 13.6 percent of Alaska's total (Table 7). Although it has been rumored that the survival of this program is in danger of Congressional cuts, the President's proposed FY 2000 budget called for EAS funding to remain at current levels, and Senator Stevens' Washington D.C. office denied knowledge of any such prospect, at least in the near term (Mitch Rose, Senator Stevens' Washington, DC, office, personal communication, February 12, 1999).

Table 7.
Southwest Alaska Communities Receiving Essential Air Service

Community	Subsidized Carrier	Service to (hubs)	Annual Subsidy	Aircraft type
Kodiak Bush Points Amook Bay Kitoi Bay Moser Bay Olga Bay Port Williams Seal Bay West Point Zachar Bay	Peninsula	Kodiak	\$144,084	G-44, Widgeon (5 seats)
Atka	Peninsula	Dutch Harbor	\$9,000	Piper T-1040 (9 seats)
Nikolski	Peninsula	Dutch Harbor	\$106,329	G-21, Goose (9 seats)
TOTAL ANNUAL VALUE OF EAS SUBSIDY TO SOUTHWEST ALASKA STUDY AREA			\$259,413	ALASKA TOTAL \$1,906,697

Bypass Mail

Alaskans receive another indirect source of federal aviation subsidy in the form of the US Postal Service's (USPS) Bypass Mail Program. This program, per se, allows large parcel post shipments to bypass a post office, with postage affixed at its origin, thus benefiting from the uniform rate used by the postal service as described below.

The USPS is mandated by law to provide universal mail service throughout the US at uniform rates, regardless of the fact that it is far more expensive to carry out this service in places like Southwest Alaska, where long distances and harsh conditions make air movement of the mail (including freight, such as groceries, carried as mail) necessary. Because mail rates must be uniform throughout the country, it costs far less to mail freight by parcel post through the USPS than it would to send goods through a private carrier. For instance, to send a 65-pound package from Anchorage to Dillingham via a private freight carrier would cost \$45.50, but sending the same package via bypass mail would cost only \$20.15, less than half as much. Given these rate differences, it is not surprising that so much rural cargo is shipped via the USPS (Table 8).

Under the current system, the USPS allocates mail equally among all carriers offering regularly scheduled service within a similar time frame. "The requirement to maintain competitive service frequency to handle a share of the mail has resulted in more frequent passenger service between Anchorage and Fairbanks and western-arctic hubs, and between hubs and outlying villages that could be supported otherwise" (*Alaska Intermodal Transportation Plan*, Alaska Department of Transportation and Public Facilities, October 1994). Communities in Southwest Alaska that currently serve as hubs include Cold Bay, Port Heiden, Dillingham, Kodiak, King Salmon, and Unalaska/Dutch Harbor.

Table 8.
Typical Air Freight and Mail Rates
Between Representative City Pairs (\$/Pound)

City Pairs	Distance (mi.)	Freight Rate		USPS Priority Mail 2 days			USPS Parcel Post (Bypass) Mail 4-7 Days		
		100lb	100lb-499lb	Up to 1lb	10lb	10lb-70lb (limit)	1lb	10lb	70lb (limit)
Anchorage–Dillingham	329	.70	.50	10.00	1.00	.48	2.31	.31	.08
Anchorage–Iliamna	195	.45	.34	10.00	1.00	.48	2.31	.31	.08
Anchorage–King Salmon	289	.70	.50	10.00	1.00	.48	2.31	.31	.08
Anchorage–Kodiak	252	.70	.49	10.00	1.00	.48	2.31	.31	.08
Anchorage–St. Paul	767	1.07	.97	10.00	1.00	.48	2.31	.31	.08
Dillingham–Anchorage	329	.45	.32	10.00	1.00	.48	2.31	.31	.08
Iliamna–Anchorage	195	.35	.32	10.00	1.00	.48	2.31	.31	.08
King Salmon–Anchorage	289	.45	.32	10.00	1.00	.48	2.31	.31	.08
Kodiak–Anchorage	252	.45	.34	10.00	1.00	.48	2.31	.31	.08
St. Paul–Anchorage	767	.69	.58	10.00	1.00	.48	2.31	.31	.08

The costs borne by the USPS to serve Alaska with the Bypass Mail Program have multiplied rapidly over the past decade (Table 9). Between 1986 and 1991 the intra-Alaska air transportation costs paid by the USPS increased from \$59 million to \$95 million, most of which went to pay to move parcel post mail. "The increase in costs is due to increased volume, especially to bush destinations, as well as rate increases made under the continuing ratemaking responsibility of the US Department of Transportation to regulate the mail pay rates to air carriers in Alaska. The deficit resulting from the difference between Alaska parcel post revenue from postage and the cost of purchased air transportation alone has risen from \$23 million in 1986 to \$70 million in 1991" (*Alaska Parcel Post Task Force Report*, 1993, provided by Carl Siebe, DOT&PF, January 1999).

Table 9.
Alaska Parcel Post
Financial and Operating Summary, 1986-1991

Fiscal Year	Volume (pounds) Mainline	Bush	Revenue	Costs	Loss
1986	90.5	36.4	\$8	\$31	\$23
1987	96.2	38.5	\$8	\$47	\$39
1988	102.3	42.6	\$9	\$58	\$49
1989	108.5	47.0	\$11	\$62	\$51
1990	113.2	49.5	\$10	\$79	\$69
1991	113.7	52.0	\$12	\$82	\$70
% Increase	25.6%	42.9%	50.0%	164.5%	204.4%

According to the report just referenced, the USPS, which was separated from direct Congressional control in 1971, is under pressure to operate more cost-effectively, and to balance user fees, in the form of postage, with delivery methods that allow the USPS to meet the actual costs of providing service. With this goal in mind, the USPS is seeking ways to deliver mail to remote regions of Alaska at a lower cost. Any such efforts will be monitored carefully by Alaska's congressional delegation, insofar as their effects on Alaskans' mobility and access to goods and services will be significant, particularly in the bush.

MARINE

Ports and Harbors

Funding for marine ports and harbors is unique among Alaskan transportation modes. This uniqueness originates at the federal level. Nationwide, ports and harbors have no federal assistance program wherein funding is allocated to the states via Congressionally negotiated allocations and apportionment, as is the case of surface transportation or aviation funding. The lack of such a program is experienced acutely in Alaska, where 90 percent of the population lives within ten miles of the coast or along a major river, and where the roadway system is skeletal (*Sustaining and Developing Alaska's Ports and Harbors: A Statewide Proposal*, DOT & PF, 1994).

Although both surface and aviation funding programs contain various discretionary subprograms, at the core of each are apportionments to which each state is entitled based upon complex formulas that take into account factors such as federal taxes, population, miles of interstate roadway miles, passenger and cargo enplanements, and many others. Because of these federal funding formulas, which are hammered out via a political process in Congress, each and every state receives a share of the total federal program.

The situation for ports and harbors, however, is radically different. The main source of ports and harbors funding is the US Army Corps of Engineers (COE), which is under no obligation to distribute the resources it is granted on anything other than a nationally competitive, project-by-project basis. The COE moreover, only develops projects; funding depends on Congressional approval on a line-item basis. In other words, the State cannot plan on receiving *any* portion of the COE's support in any given year, nor can the State "flex" any COE funding; any and all funding is appropriated on a project-specific basis. As such, rather than being driven by any state prioritization or program, the federal port and harbor funding process is driven by the COE's assessment of a project's merit, and by Congress's willingness to fund the COE's recommendation.

Basically the process for securing COE funding projects set forth by communities that have the potential to meet stringent federal requirements are developed by the DOE for possible Congressional appropriation. While port and harbor projects are submitted by communities for inclusion on the Statewide Needs List, and while they are ranked using a process similar to that used to rank highway and airport funding systems, these projects are not included in the STIP since they are not funded or programmed in any manner remotely analogous to that governing other types of transportation projects.

Within the COE, requests for projects are submitted to the Alaska Division, prioritized, and then forwarded to the Pacific Ocean Division for screening. The Pacific Ocean Division includes Alaska, Hawaii, Guam, Samoa, Japan, and Korea. Typically, projects are screened on their ability to provide national economic benefits as well as regional and quality of life benefits, including improvement of a community's health, safety, and welfare. Once projects have been screened, they are submitted to Crops Headquarters in Washington, DC for additional review. In general, projects with the greatest demonstrated need are recommended, subject to budgetary and funding constraints. COE headquarters has discretion in selecting projects for submission to the Federal Office of Management and Budget for inclusion in the President's budget. Projects are often added by Congress to the President's budget during the appropriations process.

There are two basic COE programs that civil works projects can fall within: 1) general investigation (GI); and 2) continuing authority (CA). Roughly, if the estimated cost of a project is over \$4 million it will go into the GI program. These projects are submitted for Congressional appropriation with specific budgets attached (and typically receive 10 to 15 percent less due to savings and slippage factors). The CA program includes several authorities, for navigation, flood control, emergency stream and protection and environmental restoration. Each of these authorities has a specific federal funding limit. Navigation projects, for example, are limited to a maximum of \$4 million and have funding limits for federal operation and maintenance of the general navigation features (e.g., breakwaters, entrance channels) following construction. For these projects, the total estimated cost for both study and construction must not exceed \$4 million. Once a project has begun, future funding is generally more predictable and is usually

funded annually until it is completed. Brisk nationwide competition for limited COE funding makes getting a project started difficult without strong Congressional support.

PROJECT SELECTION AT THE STATE LEVEL

In terms of project selection at the state level, the State Harbor Engineer is the functional equivalent of the Project Evaluation Board for surface transport and aviation modes. Unlike these other processes, however, there is no constrained funding plan akin to the STIP for port and harbor projects. Rather the State Harbor Engineer maintains the needs and priorities list for ports and harbors; the top-ranked projects are simply and typically those that have or are likely to receive federal funds. It is this subset of projects that is submitted each year during the budgeting process and recommended for state appropriation. Once the state determines the appropriation it will make for ports and harbors, scoring criteria are used to further prioritize projects for that fiscal year. The State's score indicates which projects among those that will receive federal funding are of higher importance to the state. In this way, the federal funding drives port and harbor projects in Alaska. This situation is problematic because worthy projects such as those involving major renewal or replacement will not advance over a project that attracts a sizable federal contribution even if the project is in question.

Moreover, the COE is quite restrictive in terms of the types of projects it will even consider for funding. Only those projects that involve breakwater and/or entrance channel improvements can be considered. However, not all port and harbor development needs in Alaska meet these restrictive eligibility criteria. (Harold Moeser, DOT&PF, personal communications, February 17, 1999). The other requirement for COE funding is that the project must undergo and pass a rigorous cost-benefit analysis.

In the past, the state has been able to either to make a substantial contribution on behalf of the (local) sponsor, or at least participate to some degree by providing technical assistance (Table 10). The practice seems to be around a 50/50 state and local partnership around the local share match. On a total project cost basis, therefore, this represents an effective 22.5% state share; a 22.5% community share; and a 55% COE share. Breakwater and entrance channel improvements generally require a smaller local match, 20-35%, depending on navigation channel depth.

Of all federal transportation funding sources, spending by the COE for ports and harbors projects represents the smallest share of Alaska's transportation appropriations. Between 1992 and 1997, for example, COE funding for Alaska ports and harbors accounted for between 1 and 4 percent of total federal transportation aid. Over the past six years, Alaska has received an average of \$8.6 million annually in federal funding from all COE programs.

FUNDING SOURCES: THE STATE ROLE

At the state level, required matching funds for federal grants are typically appropriated from the General Fund. The Alaska constitution prohibits the dedication of funds, except when required by the federal government for state participation in federal programs. Currently, the only source of dedicated funds is the International Airport Revenue Fund, a sub-fund of the General Fund, which supports operation and maintenance of the two International Airports. There are other sub-funds that are typically used to support DOT&PF operating programs, including the Alaska

Marine Highway Fund and Highway Equipment Working Capital Fund. However, these are not dedicated funding sources. Revenues from various fees, charges and taxes go into the General Funds are typically appropriated back to DOT&PF as program receipts to run their programs.

The DOT&PF operating budget outlines spending authority for the current fiscal year and the source of funding. In FY 1997, the operating budget totaled \$339.6 million, a small increase (about 1.0 percent) over the 1996 operating budget. Approximately 38 percent of the operating budget consists of General Fund appropriations, including matching funds and program receipts. Approximately 28 percent of the operating budget consists of CIP receipts—the amount authorized for personnel services that are charged against projects in the capital budget—and Marine Highway stabilization—the amount appropriated from the General Fund for deposit in the Alaska Marine Highway Fund. The virtually unchanged level of spending in DOT&PF's operating budget over time, despite inflation and increased transportation demand, is depicted in Table 10.

Table 10.
Selected DOT&PF Funding Sources, Allocations
and Total Budget, FY 1992-1997
(millions of nominal dollars)

	1992	1993	1994	1995	1996	1997
General Fund Appropriations*	\$134.6	\$130.7	\$128.5	\$129.1	\$129.7	\$128.1
Capital Improvement Program (CIP) Receipts**	\$58.9	\$63.4	\$66.2	\$65.6	\$65.6	\$65.2
Marine Highway Stabilization***	\$30.6	\$30	\$28.7	\$28.3	\$28.2	\$28.4
Maintenance and Operations Budget	\$90.5	\$87.7	\$88.7	\$90.5	\$91.1	\$91.3
Total DOT&PF Budget	\$241.6	\$238.8	\$238.9	\$241.3	\$242.2	\$245.9

* Includes General Fund, General Fund Match and General Fund Program Receipts. ** CIP receipts in the operating budget reflect the authority to spend personnel services that are then charged against projects in the capital budget. *** Marine Highway Stabilization is the amount of General Funds appropriated for deposit to the Alaska Marine Highway Fund. The amount of stabilization funding should be subtracted from the total to avoid overstating how much can actually be spent. Sources: "Technical Memorandum 4: Preliminary Assessment of Potential Financial Resources: Southeast Alaska Transportation Plan," prepared for DOT&PF, November 1997; Patty Olson, DOT&PF [M&O data only].

MOTOR FUEL TAXES

Motor fuel taxes are an important source of revenue for the state. The state currently levies highway, aviation and marine fuel taxes on both gasoline and diesel fuels. A historical comparison of these taxes is shown in Table 11. Tax collections totaled \$39.6 million in FY 1997 and \$38 million FY 1998. The highway fuel tax accounts for about 56 percent of total motor fuel revenues, while aviation and marine fuel taxes each account for about 22 percent. Highway fuel taxes are expected to account for a greater percentage of total motor fuel tax revenues due to recent changes in the aviation fuel exemption.

Table 11.
State Fuel Tax Revenues by Type, 1995-1998
(millions of dollars)

	FY 1995	FY 1996	FY 1997*	FY 1998*
Highway	\$23.9	\$21.0	\$20.2	\$26.0
Aviation**	\$8.0	\$8.2	\$8.1	\$5.3
Marine	\$7.7	\$8.5	\$7.3	\$6.
Total	\$39.6	\$37.7	\$35.6	\$38.0

* Preliminary estimates for FY 1997 and 1998. Projections for FY 1198 calculated to reflect changes in HB 63 (Aviation Fuel Exemption).

** Alaska Statute 43.40.010 provides that 60 percent of aviation motor fuel tax collected at an airport owned and operated, or leased an operated by a municipality be shared with the municipality.

AVIATION REVENUES

Program receipts for DOT&PF include airport leasing revenues, fuel flowage fees, tie-down and parking fees, utility fees and specific right-of-way leases. Airport related revenues generally go to support leasing and airport maintenance programs. M&O costs at Alaska's rural airports are supported by appropriations for the state's General Fund. Sources of revenue to the General Fund include a land rental, concession fuel and fuel flowage tax of \$0.02/gallon, an aviation fuel tax of \$0.047/gallon and a jet fuel tax of \$0.032/gallon. It should be noted that revenues generated by these taxes are not typically sufficient to cover M&O costs. In FY 1996, for example, total M&O expenditures were \$19.2 million, while revenues were \$10.5 million. The deficit of \$8.7 million was covered through additional appropriations. Revenue shortfalls have ranged from a low of \$3.6 million in FY 1987 to \$11.2million in FY 1991.

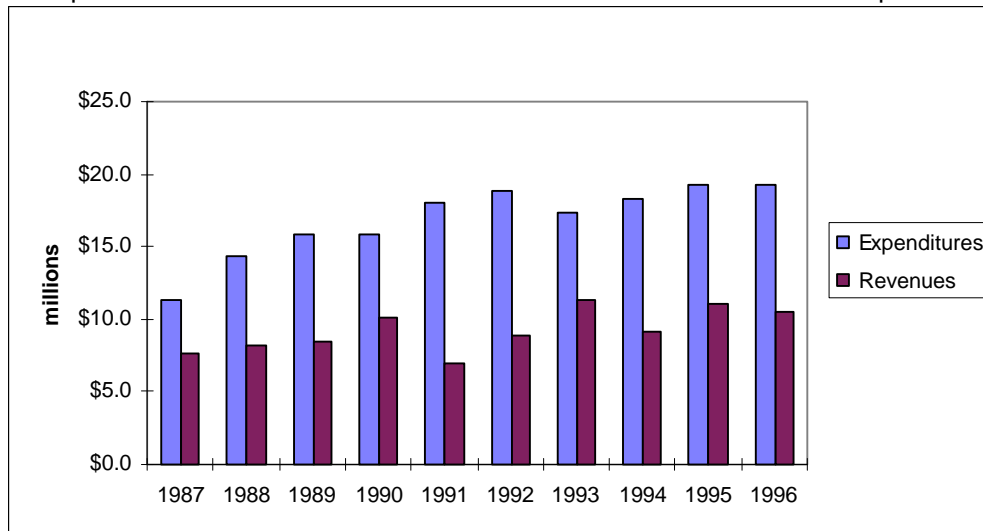
Rural airports in Alaska, including those in Southwest Alaska, receive the majority of aviation fuel tax revenues (Table 12 and Figure 4). A recent change in the law has the potential to reduce available revenues for these airports. As of July 1, 1997, international air carriers were exempted from paying the aviation fuel tax at the Anchorage and Fairbanks International Airports. The Transiting Aircraft Fuel Exemption exempts incoming or outgoing international flights (e.g., UPS, FedEx) from payment of the tax. It is anticipated that this exemption will reduce total aviation fuel tax revenues 30-40 percent (\$3 to \$4 million a year).

Table 12.
Rural Airport System Expenditures Exceed Revenues

(\$ millions)	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96
Expenditures¹	\$11.3	\$14.3	\$15.8	\$15.8	\$18.1	\$18.9	\$17.4	\$18.3	\$19.3	\$19.2
Airport Revenue	\$2.1	\$2.0	\$2.0	\$2.0	\$2.1	\$3.9 ²	\$2.9 ³	\$2.2 ³	\$2.5 ³	\$2.3
Aviation Fuel Tax ⁴ (Revenue)	\$5.6	\$6.2	\$6.5	\$8.1 ⁵	\$4.8 ⁵	\$5.0	\$8.4	\$6.9	\$8.5	\$8.2
FY Totals	\$7.7	\$8.2	\$8.5	\$10.1	\$6.9	\$8.9	\$9.3	\$9.1	\$11.0	\$10.5
Revenue Shortfall	\$(3.6)	\$(6.1)	\$(7.3)	\$(5.7)	\$(11.2)	\$(10.0)	\$(8.1)	\$(9.2)	\$(8.3)	\$(8.7)

¹ Includes only the costs directly related to the operation of the rural airport system. Excludes costs related to airport planning projects, and airport capital improvement, design, and construction. ² Includes a full year of landing fee revenues. ³ Land fees were terminated in 1993. ⁴ Figures are net of refunds and municipal airport share backs. ⁵ Reflects a one-time report and payment in 1990.

Figure 4.
Expenditures Exceed Revenues at Rural Alaskan Airports



AMHS REVENUES

User fees, including ticket prices, do not cover the cost of providing AMHS service. Among AMHS user fees, which include stateroom proceeds, food, and concession sales, two types of revenue—passenger ticket sales and non-van vehicle ticket sales—make up the bulk of AMHS revenues. Accounting for about three quarters of the total (Figure 5 and Table 13) passenger ticket sales account for 39.7 percent of AMHS revenues and non-van ticket sales account for 35.7 percent. Ticket sales for vans make up 4.0 % of total AMHS revenues. Combined, all other sources (e.g., staterooms, dining room, bar, gift shop and vending machines) account for 20.6 percent of AMHS revenues.

Figure 5.
FY1996 AMHS Fund Revenues*

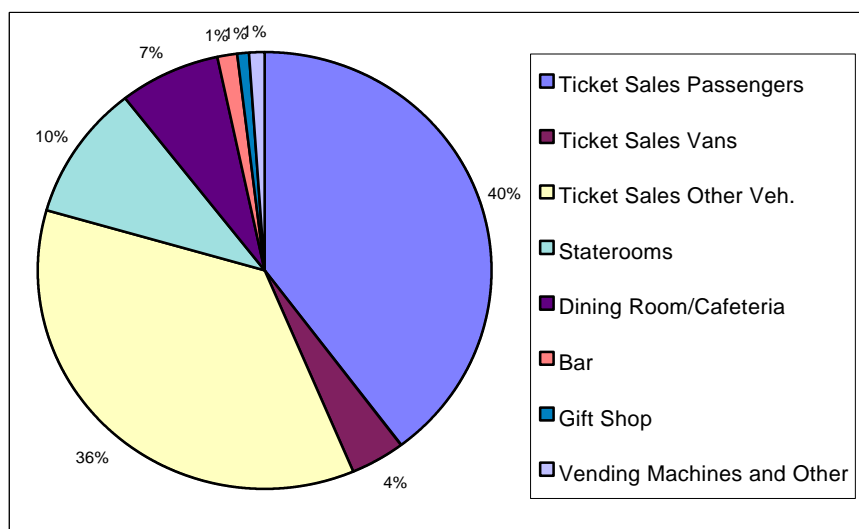


Table 13.
AMHS Fund Revenues by Type
(thousands of dollars)

Item	Percent of AMHS Fund Revenues	Total
Ticket Sales Passengers	39.7%	\$15,346
Ticket Sales Vans	4.0%	\$1,535
Ticket Sales Other Veh.	35.7%	\$13,811
Staterooms	10.1%	\$3,897
Dining Room/Cafeteria	7.3%	\$2,812
Bar	1.2%	\$482
Gift Shop	0.9%	\$344
Vending Machines	0.5%	\$186
Other	0.6%	\$243

Source: Brian Braley, AMHS, personal communications, January 1999.

Ticket prices for passengers and vehicles are shown in Figures 6 and 7. Systemwide, the AMHS generated user fees of about \$37.5 million for FY 1997. Like highway and air travel, however, the revenues generated by user fees are not sufficient to pay the full costs associated with operations. In 1997, systemwide AMHS operating costs totaled \$71.1 million. Capital expenditures totaled \$57 million, for which the State was responsible for a 20 percent match (\$11.4 million). All told, AMHS operations required a \$45 million General Fund subsidy in 1997. Although AMHS ticket prices are considered by some travelers, particularly families, to be high, the cost of running the service, particularly in Southwest Alaska, are even higher. Costs include vessel operations, shore operations, reservations and marketing, engineering, management and administration (Figure 8).

Figure 6.
1999 Adult Fares (dollars)

	Unalaska	Akutan	FalsePass	ColdBay	KingCove	SandPoint	Chignik	Kodiak	PortLions	Seldovia	Homer	Seward
Akutan	16											
FalsePass	46	34										
ColdBay	62	50	18									
KingCove	74	66	34	18								
SandPoint	98	90	58	42	32							
Chignik	132	124	92	76	66	42						
Kodiak	202	194	162	146	136	112	76					
PortLions	202	194	162	146	136	112	76	20				
Seldovia	246	240	208	192	180	156	122	52	52			
Homer	242	236	204	188	176	152	118	48	48	18		
Seward	250	242	210	194	184	160	124	54	54	100	96	
Valdez	292	286	254	238	226	202	168	98	98	142	138	58

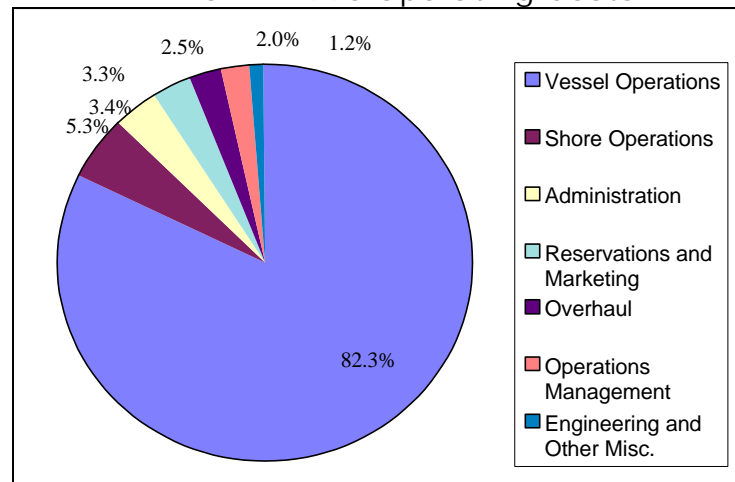
Figure 7.
1999 Standard Vehicle Fares* (dollars)

	Unalaska	Akutan	False Pass	ColdBay	KingCove	SandPoint	Chignik	Kodiak	PortLions	Seldovia	Homer	Seward
Akutan	**											
FalsePass	123	**										
ColdBay	169	**	46									
KingCove	200	**	87	41								
SandPoint	269	**	156	110	80							
Chignik	370	**	257	211	180	110						
Kodiak	571	**	458	412	381	312	211					
PortLions	571	**	458	412	381	312	211	46				
Seldovia	699	**	586	540	509	439	339	138	138			
Homer	687	**	574	528	497	428	327	126	126	35		
Seward	706	**	594	548	517	447	347	145	145	277	265	
Valdez	830	**	718	672	641	571	470	269	269	401	389	134

*Fares listed for the average (SW/SC systemwide) vehicle length of 19' - not including driver.
Passenger sedans, pickups, vans, RV's, trucks and construction vehicles included in average.
**There are no vehicle loading facilities at Akutan.

Sources: <http://www.dot.state.ak.us:80/external/amhs/tariffs>
AMHS Fast Passenger Vehicle Ferry Optimization Study
& AMHS database

Figure 8.
AMHS FY 1996 Operating Costs



The shortfall between costs and revenues is discernible in Table 14. The shortfall is particularly large in Southwest Alaska, where the seas are harsh, routes are long, and the communities served are relatively small. Whereas in 1996, for example, *Tustumena* operations accounted

for 7.7 percent of AMHS expenditures, they only contributed 5 percent of the revenues (Figure 9). Put simply, AMHS service is subsidized by the State General Fund, more heavily so in Southwest Alaska than systemwide (Figure 10).

Table 14.
M/V *Tustumena* Revenues and Expenditures
Relative to Systemwide Figures

	FY 90	FY 91	FY 91	FY 92	FY 93	FY 94	FY 95
MV <i>Tustumena</i>							
Service Characteristics							
<i>Tustumena</i> weeks service provided	27	20	45	41	35	35	34
Number of Aleutian Trips	6	3	6	6	6	7	6
Tust. - Number of Vehicles Carried	7,861	3,606	8,287	7,775	7,275	7,264	7,519
Tust. - Number of Passengers Embarking	22,374	6,597	21,542	20,872	19,644	19,578	20,371
<i>Tustumena</i> Financial Data							
Revenues	\$2,392	\$1,634	\$2,185	\$2,421	\$2,040	\$2,521	\$1,940
% of Total	6.6%	3.8%	5.1%	5.9%	5.1%	6%	5%
Expenditures	\$5,239	\$3,595	\$5,010	\$5,620	\$3,690	\$5,501	\$4,060
% of Total	9.9%	6.4%	9.6%	10.5%	7.3%	10.3%	7.7%
<i>Tustumena</i> Revenue/Expenditure Ratio	0.46	0.45	0.44	0.43	0.55	0.46	0.48
Systemwide							
Service Characteristics							
Systemwide weeks service provided	297	288	330	297	310	254	291
number Aleutian Trips	7	4	5	6	5	6	5
SW AK - Number of Vehicles Carried	16,810	12,660	15,656	15,629	15,245	15,031	14,809
SW AK - Number of Passengers Embarking	50,271	36,248	47,756	48,595	48,545	45,373	48,053
Financial Data							
Revenues	\$36,122	\$42,561	\$42,838	\$40,879	\$40,373	\$42,231	\$38,656
Expenditures	\$53,119	\$56,225	\$52,120	\$53,640	\$50,310	\$53,559	\$52,503
Systemwide Revenue/Expenditure Ratio	0.68	0.76	0.82	0.76	0.8	0.79	0.74

* Dollar amounts in thousands. Source: AMHS.

Figure 9.
M/V Tustumena Expenditures Exceed Revenues

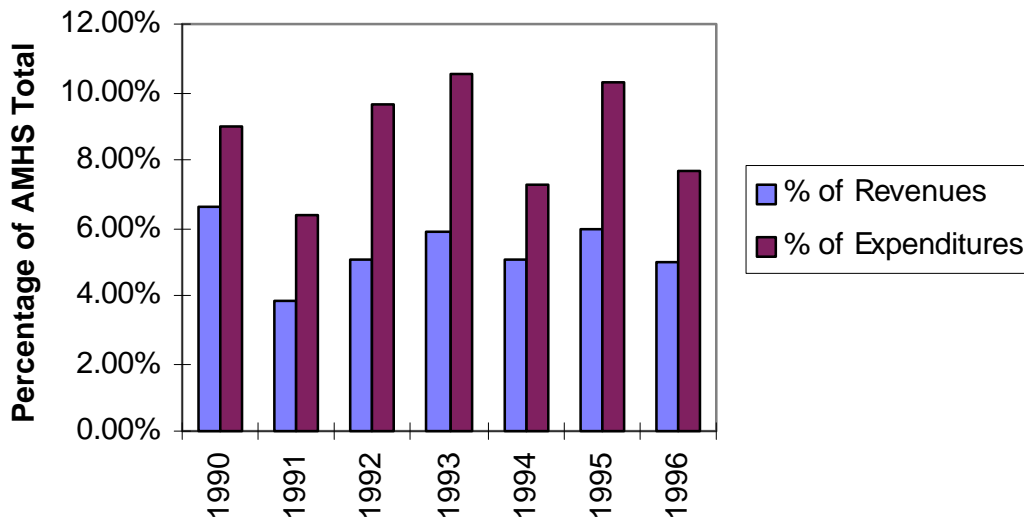
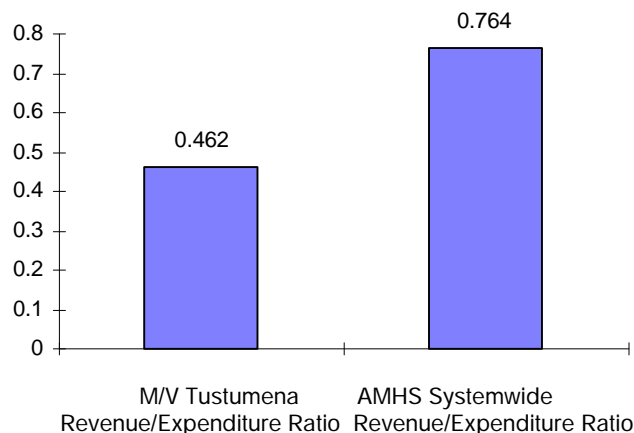


Figure 10.
AMHS Revenues Compared to AMHS Operating Costs



PORTS AND HARBORS REVENUES

Alaska's marine fuel tax of 5 cents per gallon has not been raised since 1977; it generates an average of over \$8 million annually and is deposited into the General Fund. In contrast to the highway fuel tax, which generates less the amount required to match federal funds, the marine fuel tax generates significantly more than the state spends on port and harbor improvements. However, revenues from the marine fuel tax are not a dedicated source of funding for port and harbor operations, maintenance and improvements.

State-level ports and harbors funding practices are strongly related to, if not driven by, federal funding mechanisms. Up until FY 99, the Legislature's primary role in funding ports and harbors related to its appropriation of state match for COE funding. In practice, the result has been the deferral of much-needed maintenance.

“A primary consequence of unpredictable funding is that major maintenance at ports and harbors is often deferred...The result of this maintenance philosophy is that components deteriorate rapidly, long before the end of their potential life. As there is no funding in place for renovation, the situation limits the service life of such facilities.” *Sustaining and Developing Alaska’s Ports and Harbors*.

Maintenance at many Alaskan ports and harbors has been deferred for three primary reasons:

- Deferring maintenance has kept user fees low, thereby making the facility more attractive to users;
- State and local operators have deferred maintenance in the belief that once a facility failed, state funding would be available to replace it; and
- Operating agreements between the state and local government have been inconsistent in defining maintenance responsibilities.

With regard to deferred maintenance, not only for ports and harbors, but also for schools, roads and other central elements of Alaska’s infrastructure, FY 1999 is proving an historic year. The State Legislature has appropriated over \$55 million worth of deferred maintenance funding; including \$28.8 million for ports and harbors, a large majority of which is earmarked for projects in Southwest Alaska (Table 15).

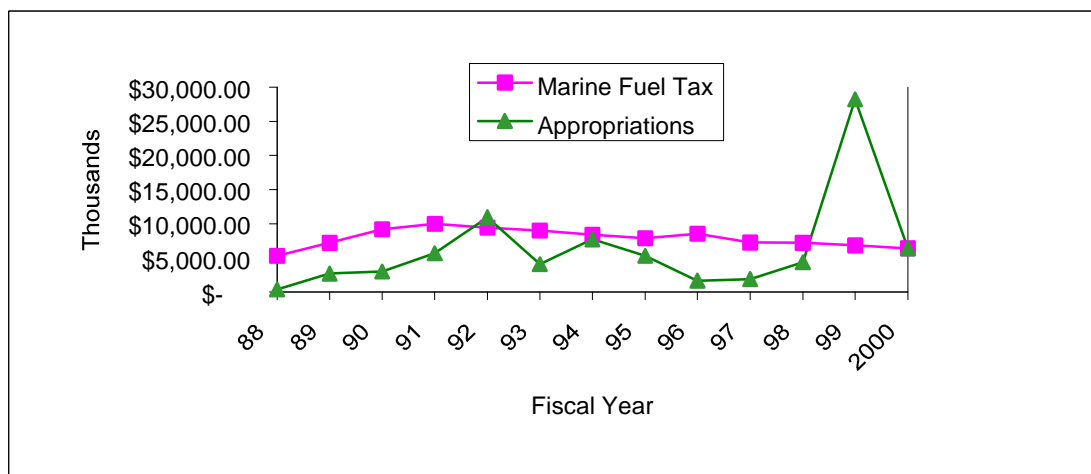
Table 15.
FY 99 Legislative Funding for Ports and Harbors

Project	Source	Amount	Notes
Sitka COE Match	Sec. 115 reappropriations	\$350,000	This project will make the post-construction audit final payment to the COE on behalf of the city and Borough of Sitka for the Sitka Breakwater project. This completes the funding for the Sitka's new \$18 million harbor.
Ouzinkie Inner Harbor	Sec. 115 reappropriations	\$260,000	Design, construction and install a minimal float system in the newly constructed harbor basin.
Akutan	Sec. 131	\$93,750	Portion of the non-federal match for navigation improvement feasibility study.
False Pass Harbor	Sec. 131	\$93,750	Portion of the non-federal match for navigation improvement feasibility study.
Program Formulation	Sec. 131	\$100,000	Portion of the non-federal match for navigation improvement feasibility study.
Wrangell Harbor	Sec. 131	\$37,500	Portion of the non-federal match for navigation improvement feasibility study.
Kodiak Harbor	Sec. 133 bond receipts	\$7,775,000	Identify and fund needed major maintenance, repairs, and replacements in the recently transferred State-to-Kodiak facilities in Kodiak Harbor
Seward Harbor	Sec. 133 bond receipts	\$3,134,200	Identify and fund needed major maintenance, repairs, and replacements in the recently transferred State-to-Seward facilities in Seward Harbor
Homer Harbor	Sec. 133 bond receipts	\$3,605,000	Identify and fund needed major maintenance, repairs and replacements in State-owned facilities in the Homer harbor.

Project	Source	Amount	Notes
Chignik Small Boat Harbor	Sec. 133 bond receipts	\$3,314,000	Assist the City of Chignik and Lake and Peninsula Borough in sponsoring this project. State share not to exceed 50% of the non-federal NED plan cost.
King Cove Harbor	Sec. 133 bond receipts	\$2,237,500	Assist the City of King Cove and Aleutians East Borough in sponsoring this project. State share not to exceed 50% of the non-federal NED plan cost.
St. George Harbor	Sec. 133 bond receipts	\$225,000	Assist the city of Saint George to sponsor this COE-developed project, which is ready for bid. State share not to exceed 50% of the non-federal NED plan cost.
Unalaska Small Boat Harbor	Sec. 133 bond receipts	\$500,000	Assist the City of Unalaska. This project is being developed and remains to be described in an approved feasibility study.
Sand Point Harbor	Sec. 133 bond receipts	\$2,137,000	Assist the city of Sand Point and the Aleutians East Borough. State share not to exceed 50% of the non-federal NED plan cost.
St. Paul Harbor	Sec. 133 bond receipts	\$4,044,600	Assist the City of St. Paul. State share not to exceed 50% of the non-federal NED plan cost.
Deferred Maintenance Harbors	Sec. 133 bond receipts	\$900,000	The Department will propose projects to meet the State Harbor System's most critical need. Kake, Port Lions, Gustavus, Hydaburg and Metlakatla are most likely to be addressed.

The very magnitude of this appropriation, \$28,197,200 in all, the second largest in state history, underscores the unpredictability of legislative appropriations, which over the past decade, have ranged from a low of \$1,669,500, to this year's high. The volatility of Legislative appropriations for ports and harbors is depicted graphically in Figure 11.

Figure 11.
13-Year History of Revenues Versus Appropriations for Ports and Harbors



FUNDING SOURCES: LOCAL GOVERNMENT'S ROLE

Local taxes in Southwest Alaska include sales taxes ranging from 2 percent to 6 percent, raw fish taxes, ranging from 1 to 3 percent, bed taxes, and property taxes. The 1997 tax data provided by the Department of Community and Regional Affairs (DCRA) are listed in Table 16. Local taxes in Southwest Alaska are quite limited, as are the services provided by local government. According to DCRA data, several communities in Southwest Alaska collect total tax revenues of under \$20,000 (Larsen Bay, Nondalton, Old Harbor, and Ouzinkie). Meanwhile, the communities of Aleknagik, Newhalen, Port Heiden, and Port Lions, do not appear to levy any taxes at all.

Table 16.
Local Tax Revenues in Southwest Alaska, FY 1997

Municipality	Sales Tax	Revenues	Other Special Tax	Revenues	Property Tax
Akutan	No	—	1 percent raw fish tax	\$501,686	—
Aleknagik	No	—	No	—	—
Aleutians East Borough	No	—	2 percent raw fish tax	\$2,183,802	—
Bristol Bay Borough	No	—	3 percent raw fish tax; 6 percent bed tax	\$1,115,030 /\$130,833	\$1,542,314
Chignik	No	—	1 percent salmon; 2 percent other seafood	\$122,629	—
Clarks Point	5%	NA	No	—	—
Cold Bay	No	—	\$0.02/gal fuel transfer tax; \$0.01/gal dock fees	\$30,515/\$15,158	—
Dillingham	5%	\$1,530,223	9 percent bed tax; 5 percent gaming tax; 9 percent liquor tax	\$46,733/\$94,099 /\$152,202	\$1,010,231
King Cove	2%	\$706,415	No	—	—
Kodiak	6%	\$5,518,872	5 percent bed tax	\$93,096	\$588,752
Kodiak Island Borough	No	—	6.75 percent severance tax; 5 percent bed tax	\$845,638 /\$11,215	\$5,400,951
Lake and Pen Borough	No	—	2 percent raw fish tax; guide and lodge fees	\$1,794,076 /\$104,473	—
Larsen Bay	3%	\$18,850	No	—	—
Newhalen	No	—	No	—	—
Nondalton	3%	\$5,761	No	—	—
Old Harbor	3%	\$15,923	No	—	—
Ouzinkie	3%	\$13,332	No	—	—
Pilot Point	No	—	3 percent raw fish	\$631,656	—
Port Heiden	No	—	No	—	—
Port Lions	No	—	No	—	—
St. George	No	—	3 percent raw fish; 3 percent fuel transfer	\$191,129 /\$11,514	—
St. Paul	3%	\$409,695	3 percent raw fish tax	\$1,665,229	—
Sand Point	2%	\$570,802	2 percent raw fish tax	in general sales tax	—
Togiak	2%	NA	2 percent raw fish tax	NA	—
Unalaska	2%	\$5,136,874	2 percent raw fish tax; 5 percent bed tax	\$2,641,645 /\$103,089	\$3,883,672

Source: Department of Community and Regional Affairs "Municipal Sales Tax, Special Taxes, and Revenues," DCRA Website.

INNOVATIVE FUNDING STRATEGIES

In recent years, the federal government along with state, local and private parties have begun to support innovative financing of transportation projects. Furthermore, with the advent of ISTEA and its reauthorization through TEA-21, the federal government has auspiciously supported alternative financing and funding strategies. Innovative financing are mechanisms intended to provide local and state governments and agencies with more flexibility in transportation financing, thus shifting away from the typical federal grant reimbursement process. This section provides some background innovative financing, and then highlights some of these strategies that may be applicable to Southwest Alaska.

The U.S. is devoting a shrinking share of its Gross Domestic Product (GDP) to maintaining and developing its transportation infrastructure. Whereas the percentage of the U.S. GDP devoted to infrastructure was fully 3.7 percent in the early 1960s, this figure had fallen to 2 percent by 1990. When this figure is adjusted to account for the investment needed to simply offset capital depreciation, it turns out the only one half of one percent of the U.S. GDP goes to improving and enhancing our transportation infrastructure. This is in striking contrast to Japan, which invests between 4 and 6 percent of its GDP. The result of the lack of investment is apparent in the much discussed degeneration of the U.S. transportation infrastructure.¹¹ “The net asset value of our roads, bridges, and streets is lower today than it was ten years ago.” (Giglio 1996).

The lack of transportation investment in the U.S. flows in large part from generalized resistance to taxation, reflecting a decreasing faith in the ability of government at any level to efficiently deliver quality products and service. Given this combination of growing demand for transportation infrastructure and taxpayer resistance, hope is emerging that a new type of relationship between the public and private sectors will evolve to meet this demand in a manner that equitably balances profits and public benefits with market-based efficiency.

“Public-private partnerships” in transportation are not new. Local, state and federal agencies have long contracted with private sector engineers, road builders, and management consultants for specified services. What is changing is the extent to which the private sector is being prevailed upon to provide the initial investment, and to reap some portion of the rewards (assuming that they exist), of providing public transportation facilities and services.

Because this new role for the private sector is in its infancy, there exist but a handful of case studies to guide policy makers. Additionally, there still exist significant institutional barriers to public-private partnerships, which leaders in Congress and in state legislatures have not yet fully addressed.¹² Finally, there are specific obstacles to such arrangements faced in Southwest Alaska, where private capital is scarce, implying the need to bring in capital for such ventures from outside the region. Local residents may, however, view outside investors’ participation in public-private partnerships as efforts to exploit the region with help from

¹¹ “Although the bill included more than \$100 billion for road repairs and maintenance, that amount was less than one-quarter of the amount needed to improve the condition of aging road and crumbling bridges, based on a study by the American Society of Civil Engineers” (Ota 1998).

¹² Giglio (1996) cites three chief barriers to innovative finance for transportation infrastructure maintenance and improvement: (1) states are not currently allowed to access their unobligated federal trust fund balances for credit enhancement; a domestic insurance system for public-private partnerships (akin to extant Overseas Private Investment Corporation, which insures U.S. Companies against risks for which traditional private insurance is not available or is prohibitively expensive) has not yet been developed; transportation-related bonds issued by private firms are not accorded the same tax-exempt status as those issued by government agencies.

government. On the other hand, Native Corporations do hold some capital, although it is unlikely that shareholders would support its use for transportation projects unless there were hope of a significant return on the shareholders' investment, or unless the project under consideration served shareholders' needs directly. Caveats aside, it may be helpful, in assessing financial resources potentially available to support the Southwest Alaska Transportation Plan, to consider (1) policy developments in innovative funding; and (2) selected case studies in public private partnerships.

POLICY DEVELOPMENTS IN INNOVATIVE FINANCING

The role of innovative finance is expected to play an increasingly important role in future transportation infrastructure financing in Alaska and elsewhere in the country. With passage of the National Highway System Designation Act of 1995, Congress enacted improvements in the way states and others can finance National Highway System and other transportation infrastructure. The 1995 Act builds on important financing options set forth in the Intermodal Surface Transportation Efficiency Act of 1991. Collectively, these options are termed "Innovative Finance," and are intended to move away from traditional highway financing practices based largely on grant reimbursement.

Innovative financing techniques include both "leveraging tools"—designed to make more funds available to states and other transportation providers—and "cash-flow tools"—designed to get projects into construction more quickly. Leveraging tools include flexible match, federal share on toll projects, bonds and debt instruments, and ISTEA Section 1012 Loans and Section 1044 Toll Investment Credits. Cash flow tools include advance construction and partial conversion of advance construction. Selected innovative financing techniques, codified under ISTEA, are listed in Table 17.

Table 17.
Selected Innovative Funding Techniques

Innovative Finance Technique	Description	Applicability
NHS 308 Increased State Advance Construction Flexibility	Allows DOT to approve an application for advance construction for reimbursement after the final year of an authorization period, as long as the project is in the STIP.	Can provide greater flexibility to state to engage in advance construction using anticipated apportionments. Increases states' flexibility to move forward with projects.
NHS 311 Expanded Access to Capital Markets	States can be reimbursed with federal aid funds for bond, principal, and interest costs, issuance costs, and insurance on Title 23 projects.	It is easier to attract private sector capital when bonds, notes, and other debt instruments are supported by both state and federal aid funds.
NHS 313a Increased Federal Share for Toll Projects	Sets the federal share for toll projects on highways, tunnels, and bridges at a maximum of 80 percent of eligible costs. Previously, the federal share was 50 percent to 80 percent, based on activity and system designation.	Allows greater contribution of federal funds for toll projects, allowing the state to support other transportation projects. Could be particularly useful for AMHS projects.
NHS 313b Project Loans to Non-toll Projects	States can loan federal aid funds to toll and non-toll projects with dedicated revenue streams. Permits interests rates at or below markets rates.	Transportation facility fees can function as a dedicated revenue stream in order to qualify project for a loan.

NHS 321 More Flexibility State Matching Requirements	Allows private funds, materials, or assets to be donated to a specific federal-aid project and permits the state to apply the value to the state's matching share.	Allows greater flexibility in crediting the value of contributions toward the state's share of project costs. Can free up state matching funds, for use on transportation projects.
ISTEA 1012 Loans	Allows states to loan money to a project sponsor to leverage investment in any eligible Title 23 program. Loan may be repaid to the state with project-generated revenue. Gives states more flexibility to commingle federal aid funds with state and private funds.	Allows state to grant funds to one or more projects; lend the funds to new projects with repayment by project revenues; or use funds to capitalize a revolving loan fund. Can result in lower interest rates and overall project costs.
ISTEA 1044 Toll Investment Credits	Allows states to earn credit from toll revenue expenditures, which may be applied toward non-federal matching share of all programs authorized by Title 23 and ISTEA. To earn credits from toll road expenditures, a state must meet a maintenance of effort (MOE) test.	The new MOE test gives the state the opportunity to earn these credits and to free up state funds for other projects. To the extent that credits are available, the state may use up to 100 percent federal funds on benefiting projects.
Advance Construction	State can independently raise up-front capital for a project and preserve eligibility for future federal aid funding for that project. Allows state to manage federal aid funds more effectively by choosing when to seek reimbursement.	Akin to 'construction finance' in private capital markets. Short-term debt is used to finance construction. Short-term debt then replaced with long-term debt once construction is complete. Good way for public-private partnerships to share risk.
Partial Conversion of Advance Construction	State converts, obligates, and receives reimbursement for only part of its funding of an advance construction project in a given year. Allows state to obligate varying amounts for project's eligible costs in each year, depending on how much of the state's obligation authority is available.	State can reprogram partially converted funds into new projects. Eliminates a major single year draw down of federal funds and obligational authority due to a single project. Demonstrates better project cash flow.

Some of these techniques could provide additional opportunities in Southwest Alaska to attract new sources of capital to transportation infrastructure and to enable projects to progress more quickly. Some financing techniques would allow the state to borrow more easily to finance projects, free up state funds to be used for other needs, or otherwise leverage additional dollars for transportation projects. Greater access to capital markets is particularly important in Southwest Alaska, where access to conventional financing is limited. In Alaska, the legal framework appears to be in place for public-private partnerships. To date, however, only a few projects have utilized these opportunities. However, projects identified for future development that could rely to some extent on public-private partnerships include the Juneau Access Improvements, acquisition and operation of the North Lynn Canal Ferry, and construction of the road from Thorne Bay to Kasaan. The Alaska Industrial Development and Export Authority (AIDEA) also supports public/private partnerships for economic development projects, including transportation infrastructure.¹³ Under DOT&PF's project selection criteria, the

¹³ The Alaska Industrial Development and Export Authority (AIDEA) offers public/private partnerships in economic development projects, including transportation infrastructure. AIDEA is a public corporation and government entity of the State of Alaska residing within the Alaska Department of Commerce and Economic Development. The Alaskan Legislature established AIDEA in 1967 to "promote, develop and advance the general prosperity and economic welfare of the people of Alaska." In 1980 the Legislature established and funded an Enterprise Development Account within AIDEA. AIDEA uses this account to participate in commercial loans through various bond, loan, and guarantee programs. AIDEA projects include the Delong Mountain Transportation System (DMTS), which includes a 52-mile road and shallow water dock, an offshore conveyor concentrate loading facility, storage, and other facilities. The road and port were constructed to support operation of the Red Dog mine near Kotzebue, one of the world's largest zinc producers. The original DMTS construction budget was \$185 million. A \$92 million expansion is underway and slated for a 1999 completion date. Other projects financed by AIDEA include the Federal Express Aircraft Maintenance Facility in Anchorage, the Healy Clean Coal Project, the Skagway Ore Terminal, and the Unalaska Marine Center. AIDEA's role in transportation infrastructure in Southwest Alaska could include financing private ferry service or road construction, 6/8/99 SW2Finan.doc

incentive for private contributions to projects is provided by giving higher project scores to those projects with strong local support (evidenced by a willingness to pay for some portion of the capital and/or maintenance and operating costs). However, many of these innovative financing techniques require greater levels of public/and or private investment than conventional federal programs, upon which Alaska has to date relied. The savings possible due to the ability to leverage additional funds and complete projects more quickly may, however, quickly outweigh these “costs” and uncertainties.

State Infrastructure Banks

In order to give states more flexibility in financing transportation infrastructure improvements, the National Highway System Designation Act of 1995 established a pilot program for state infrastructure banks (SIB).

A SIB is an infrastructure investment fund established to facilitate and encourage investment in eligible revenue generating transportation infrastructure projects sponsored by public and/or private entities. Through a SIB, a state can use its initial capital, provided by its federal-aid highway apportionment, federal transit allocations, and non-federal monies, to make loans, enhance credit, serve as capital reserves for bond or debt financing, subsidize interest rates, ensure letters of credit, finance purchase and lease agreements for transit projects, or provide other forms of financial assistance for construction of projects qualified under the federal-aid highway program and transit capital program. As the funds are repaid or compensation is provided, the SIB can make new financial assistance available to other projects, continually recycling the initial monies, thus leveraging the initial funds available. Some estimates are that SIBs could leverage federal funds by 4-to-1.

In 1997, Alaska was selected to participate in the SIB program. The State SIB is managed within DOT&PF under the name of Alaska Transportation Infrastructure Bank (ATIB). The ATIB currently has legislative authority to provide loans to State and local governments. Additional legislative authority is needed for the ATIB to expand the types of financial assistance provided as allowed for in the 1995 NHS Act.

DOT&PF is in the process of designing procedures for identifying, soliciting, evaluating, and approving potential ATIB financed projects. The selection process will look at the financial feasibility of the project and build upon the current criteria used to select projects for the STIP, which favor intermodal connectivity, project sponsor funding contributions, local government responsibility for operation and maintenance, and projects which have cleared environmental hurdles and which are well-supported in official local plans. The first pilot loan from the ATIB was made to the Whittier Access Project in December of 1998 utilizing \$4.6 million from a special allocation from the Federal Highways Administration and a portion of the FFY 1997 federal-aid highway apportionment.

However, SIBs generally, and the ATIB more particularly, were dealt a considerable blow under ISTEA reauthorization. Under TEA-21, the federal SIB program was shrunk from 39 to 4 states: Missouri, California, Rhode Island, and Florida. SIBs in states not on this list (including

if associated with some revenue generating activity. To qualify for the AIDEA Development Finance Program, projects must be “compatible with the local economy and endorsed by local government.” Projects must also generate revenue from user fees and leases sufficient to repay the cost of the project. Legislative approval is required for projects that require more than \$10 million in financing.

Alaska) do not cease to exist, but do not have the authority to capitalize their SIBs with federal apportionments beyond FFY 1996-1997. In contrast, the four states on this list may use up to 10 percent of their federal apportionments in specified programs on a continuing basis, beyond the FFY 1996-1997 and onward indefinitely.

The SIB program contraction at the federal level is purely political, and stems from a fundamental disagreement regarding what is perceived as the federal government's appropriate role in transportation infrastructure funding. Whereas the consensus in the Senate is that SIBs are a worthwhile concept that should be extended to all states wishing to pursue them, the feeling in the House is that the historical reliance on federal grants, as opposed to federally guaranteed or enhanced debt, should remain intact (Bob Cowan, Manager, Transportation Financial Partnership, Washington State Department of Transportation, personal communication, October 15, 1998). In any case, SIBs chief proponent, Rhode Island's Senator John Chafee, who chairs the Senate Committee on Environmental and Public Works, has pledged to reintroduce legislation expanding the role and support of SIBs. In the case of Alaska, it had been hoped by the DOT&PF that the ATIB would provide local communities, whose access to capital markets are limited, with a means of leveraging local resources, in partnership with the state. The state will use the ATIB to assist the financing of revenue generating transportation projects through loans. ATIB funds would be replenished as loans are repaid and the ATIB could make new loans. It is anticipated that these mechanisms will work particularly well for projects with potential dedicated revenue sources or user fees that will support debt financing.

TIFIA

Another form of innovative finance specified under TEA-21 is the Transportation Infrastructure Finance and Innovation Act (TIFIA) which is designed to provide Federal assistance in the form of secured direct federal loans with flexible repayment terms; loan guarantees backed by the full faith and credit of the federal government; and standby lines of credit, representing secondary sources of funding in the form of contingent federal loans that may be drawn upon to supplement project revenues in the first ten years of project operations. The program is intended to fill market gaps and to leverage private coinvestment by providing supplemental and subordinate capital. The program provides \$530 million to pay the subsidy cost of supporting loans, loan guarantees and lines of credit worth up to \$10.6 billion. To be eligible for TIFIA assistance, projects must meet several criteria:

- The project should represent a major transportation investment of critical national importance (e.g., intermodal facilities, border crossing infrastructure, expansion of multi-State highway trade corridors);
- The transportation project must cost at least \$100 or use 50 percent of a state's federal aid funds (whichever is less);
- The project must be supported in whole or in part from user charges or other non-federal dedicated funding sources;
- The project must be included in the State's transportation plan;
- Each project must receive an investment grade rating on its senior debt obligations before its Federal credit assistance may be fully funded.

Proposed projects meeting these threshold criteria are to be evaluated by the Secretary of Transportation on the basis of criteria including the extent to which the project generates economic benefits, leverages private capital, and promotes innovative technologies. Examples of eligible projects include the Woodrow Wilson Memorial Bridge near Washington, DC; Pennsylvania Station in New York City; and a proposed high-speed rail line connecting Tampa, Orlando, and Miami, Florida.

INNOVATIVE FINANCE: EXAMPLES AND OPPORTUNITIES

Roadway Projects

Roadways are limited in much of Alaska, including the Southwest region, where separation of communities by water and rough terrain has favored air and marine transportation. There is generally little incentive for private funding of roads because there is so little opportunity to receive the money invested. In some cases—the Kasaan to Thorne Bay Road and road improvements in Kake, for example—benefits to private landholders may encourage private contributions in order to move a project up onto Needs List. In such cases, DOT&PF signs cooperative agreements similar to those for utility relocations. DOT&PF pays for the cooperative project and is reimbursed by the contributing partner. The framework for such agreements is budgetary authority to receive and expend funds. The FY 1998 authority for this purpose includes \$5 million in federal receipts and \$2 million in other receipts. The federal authority is used primarily for the Forest Highways Program.

Two other special projects demonstrate the possibility of using public-private partnerships to help meet federal matching requirements and to get projects off the ground sooner. A recent example of a public-private partnership is the agreement between Sealaska Corporation and the DOT&PF to construct a road from South Thorne Bay to Kasaan on Prince of Wales Island. Sealaska, in concert with Thorne Bay and the Bureau of Indian Affairs, granted the necessary rights-of-way and easements to allow a road to be built across Sealaska's ANCSA land to provide access for residents of Kasaan to Tolstoi Bay. In addition to the rights of way and easements, Sealaska and the cities of Kasaan and Thorne Bay provided funding to DOT&PF for use as federal matching funds. Sealaska's financial support, together with that of the cities of Thorne Bay and Kasaan, moved this project forward by several years.

Goldbelt, a Native Corporation, has proposed a public-private partnership among the federal government, the State, and the City and Borough of Juneau to construct a road on West Douglas Island. The road would serve future development envisioned in the comprehensive land use plan developed jointly by Goldbelt and Juneau. Similar to the Thorne Bay to Kasaan agreement, the purpose of this public-private partnership would be to expedite roadway construction to support planned growth. The road would cross public, private, and BIA land; as such, the deal would require the cooperation of all parties. Goldbelt has "primed the pump" and kicked things off by funding an environmental study and dedicating needed rights of way. In another effort to establish a public-private transportation partnership, Goldbelt would like to work with local, state, and federal government to develop a marine port, including a ferry terminal and new ferry operations, to serve the area around Echo Cove, where Goldbelt holds about 1,400 currently inaccessible acres of land (Dave Goade, Goldbelt VP, personal communications, 1/13/99).

Canada's Confederation Bridge

A recent public-private partnership in Canada illustrates another potential partnering opportunity that may be relevant to Southwest Alaska. Under a public-private partnership, a group of private sector investors (Strait Crossing Development, Inc.) in collaboration with the Government of Canada, designed, built, and financed the Confederation Bridge, a toll bridge linking Prince Edward Island and the Canadian mainland across the Northumberland Strait. The bridge replaces government-subsidized ferry service. The only public funding for the project is the annual payment by the government equal to the annual avoidable cost of the ferry system.

The project's funding strategy risks no public funds and results in "net cost savings" for the government. Bridge construction costs were fully financed in Canadian capital markets by Strait Crossing Development, Inc., through issuance of real rate bonds fully indexed to inflation with a guaranteed rate of return. Public funding consists of the annual government subsidy required to maintain the ferry system—\$42 million in 1992 dollars—over 35 years. At the end of the 35-year period, the bridge will be transferred to the government. A net costs savings will be realized for 65 years after the developer's operating period by eliminating costs associated with operating, maintaining, and replacing the ferries and docking facilities.

The Canadian Government's annual subsidy payments to the developer were authorized by an act of Parliament in the form of the Northumberland Strait Crossing Act.¹⁴ On the strength of the subsidy agreement, Strait Crossing Financial Inc. was able to issue \$661 million (Canadian) in inflation-indexed, fully amortizing bonds. A similar effort to replace ferry routes with roads in order to avert long-term ferry operating subsidization is underway in New Brunswick. Alaska Statute 37.15.610-760 authorizes the issuance of state revenue bonds for toll bridges, tunnels, highways, roads, crossings, and causeways. The statute places a ceiling of \$500 million on toll facility bonds. Although toll facility bonds have been authorized in the past,¹⁵ to date, none have yet been issued.

Aviation

Air transportation services in Alaska, as elsewhere in the nation, are generally provided by private sector firms that operate out of publicly owned airports and use flight services and navigational aids provided by the federal government. While no law precludes the development of private airports in Alaska, most airports used for public transportation purposes are publicly owned. Proposals to lease, charter, or otherwise operate a "state airline" primarily to carry state employees between Anchorage and Juneau—have not gained broad acceptance.

The legal framework encourages the status quo. Federal airport grants for capital projects are available only to public sponsors of airports (see 49 U.S.C. Sec 47114). Given that most communities in Southwest Alaska have a publicly owned airport—many of which are seaplane bases—development of competing, privately owned facilities is unlikely because there is a low probability of obtaining an acceptable return on investment.

Private contributions to public airports are allowable, but receipt of federal airport grants is contingent upon agreeing to numerous assurances, including promoting competition among

¹⁴ The Northumberland Strait Crossing Act provides a parliamentary appropriation for the payment of the government subsidy to a Consolidated Revenue Fund for each year in which payments are to be made. This act also gave Strait Crossing Finance, Inc. specific authorization to receive the subsidy.

¹⁵ In 1988 construction of the Copper River Highway was authorized as a toll facility.

service providers and allowing public and commercial use of airport facilities funded with federal grants. Revenue from landing fees, leases or other sources associated with federally funded projects can be used for airport activities only. There is little incentive for private contributions to meet matching fund requirements because airport revenue cannot be used to provide a return on private investment, nor can it even be used to return the principal invested.

The criteria used to determine which airport projects receive funding may encourage private gifts to an airport sponsor in the sense that project scores increase when local contribution exceed minimum match requirements. Scoring criteria do not differentiate between private contribution and sponsor contribution; ranking would simply increase as the proportion of federal funding for a project decreased. A change in project score due to contributions may be slight; the primary determinant of project score is the documented need for the project, not the amount or proportion of federal money it requires.

Ports and Harbors

Traditionally, commercial marine traffic in Southwest Alaska moves by either private barge line or the Alaska Marine Highway System ferries. Barge transportation resembles aviation in that the government operates no carriers. However, while the government builds airports, barge terminal construction has been largely left to the private sector. Bethel has the only state-owned port in Alaska. Although there is no apparent legal preclusion of public/private partnerships similar to those in effect for aviation, cooperation is unlikely for the following reasons:

- Most Southwest Alaska communities have some level barge service.
- The state has no history of funding barge terminals.
- The state is unlikely to have sufficient funding with which to build barge terminals in the future given the long, as yet unfunded "Needs List" for harbor improvements.

The state traditionally has funded harbor projects in Alaska. State statutes relevant to harbors refer to the state's ability to enter into contracts and leases with communities and the incorporated entities. However, there is no mention of private parties. Although 17 AAC 80.020 encourages use of harbors by commercial fishermen, it also states that the intent of the regulations is to "discourage and prevent the use of state harbor facilities by individuals or firms for the purpose of conducting commercial enterprise." The intended purpose of these statutes is, in part, safe moorage. On the surface, regulations would appear to provide public access to water for recreational boating and commercial fishing, but not for barges, ferries, or other commercial or transportation purposes. In practice, however, tugs, charter operators, fuel distributors, and even tour operators, use state harbor facilities. AS 30.15 establishes a framework for state participation in port facilities. In the mid-1970s, a good number of ports in Alaska benefited from general obligation bond sales. However, no funds have been authorized since that time.

Regulations (17 AAC 80.050) also state that "berthing rental and other charges for use of state harbor facilities shall be paid in advance to the commissioner to be deposited into the state general fund. But this is not the actual practice; rather, communities retain all receipts. AS 35.10.120 states that fees imposed are intended to meet maintenance costs, but fails to mention repair and replacement costs.

AMHS

The AMHS fills an important transportation role in Southwest Alaska. Vessels are operated by the state, and both vessels and terminals are funded primarily through federal grants for the National Highway System. Private vessels may also use state ferry terminals, although they are subject to restrictions and regulations. Because ferries receive federal funding from the FHWA, in the form of National Highway System (NHS) apportionments, the potential for public-private partnerships for ferries would be similar to those for roads. In fact, it would be possible to share reservation systems, terminals, and other operational necessities with a private operator to provide ferry service. However, in the case of ferries, there are other complicating issues, such as union agreements and the particulars of potential private routes (including seasonal service and its impact on AMHS routes and revenues).

PRINCE OF WALES INTER-ISLAND FERRY AUTHORITY

The Prince of Wales Inter-Island Ferry Authority (IFA) was established January 1997 to provide additional service to and from Prince of Wales Island and Ketchikan. The IFA represents a cooperative effort among the communities of Craig, Coffman Cove, Thorne Bay, Wrangell, Petersburg and Klawock. These communities are working in cooperation to provide themselves more frequent marine service. The IFA was successful in securing a Congressional appropriation of \$6.4 million through the FTA.

In addition to the \$6.4 million for their first ferry, the IFA has garnered STIP funds from the state and High Priority earmarking from TEA-21. The organization plans to raise \$4 million worth of matching funds through the issuance of market rate revenue bonds. The service would be owned and operated by the IFA.

During the past session, a bill (CSSB 314(FIN)) was introduced in the state legislature to encourage local governments to create their own ferry authorities. Unfortunately, the session ended before it could be included in the package signed into law by the Governor. It will likely be reintroduced under a new number in the current session.

IMPLICATIONS FOR SOUTHWEST ALASKA

SURFACE TRANSPORTATION

To understand the proportion of surface transportation funding allocated at the statewide level to projects particular to Southwest Alaska, Alaska's 1998–2000 Statewide Transportation Improvement Program (STIP) was analyzed, along with financial spreadsheets provided by DOT&PF. The STIP includes AMHS projects. The STIP's core is a list of hundreds of projects, some of which benefit the state as a whole, others of which are particular to one region or community. An example of a statewide project would be the Department's Annual Internal Review Audit. Since it would be difficult to determine how and whether such projects benefit any particular region, only those projects particular to Southwest Alaska were counted toward the Southwest Alaska percentage. However, systemwide projects and programs were not subtracted from the total.

DOT&PF uses a number of categories to organize its transportation funding programs. These categories include National Highway Systems (NHS), Community Transportation Program

(CTP), High Priority Projects, the Shakwak Program, and Transportation and Recreational Access for Alaska (TRAAK). However, under the amended 1998-2000 STIP, projects inclusive to Southwest Alaska fall into just two funding programs: the Community Transportation Program and TRAAK.

CTP

Within the CTP, projects particular to Southwest Alaska in the amended STIP are programmed for a total of \$26,420,000 over FY 1999 and 2000. CTP statewide is programmed at \$273,842,000; as such, the Southwest share of this amount is 9.65 percent. Examples of Community Transportation Program projects in Southwest Alaska in the 1998–2000 STIP include rehabilitation and resurfacing of a gravel road in King Cove, construction of a bridge across the Newhalen River and a connecting link to Nondalton, and a bridge replacement in Unalaska.

TRAAK

Within TRAAK, projects particular to Southwest Alaska account for \$4,393,000 of the statewide total of \$55,037,300, or 7.98 percent of the TRAAK total. Examples of TRAAK projects in Southwest Alaska in the 1998–2000 STIP include trails and pathways in Kodiak, King Cove, and Naknek.

Overall, when all categories of funding are combined, including those in which Southwest Alaska has no projects programmed (e.g., NHS, Shakwak, High Priority Projects), the sum total of projects programmed statewide over the years 1999 and 2000 is \$914,851,200. Of this total, projects in Southwest Alaska account for 3% percent (Table 18).

Table 18.
Southwest Alaska Surface Transportation Funding,
1996-1998 STIP

Program	Funding to SW	Statewide Total	SW Share of Statewide Total
TRAAK	\$4,393,000	\$55,037,300	7.98%
CTP	\$26,420,000	\$273,842,000	9.65%
All Other	\$0	\$585,641,900	0%
Overall	\$30,813,000	\$914,850,200	3%

It is notable that projects identified in the regional transportation plans, including this Southwest Alaska Transportation Plan, will have more success in the STIP process than “run of the mill” projects. This is because the regional plans are adopted as elements of the Statewide Transportation Plan, which gives them status under federal law, which requires that the STIP conform with the Statewide Transportation Plan.

AVIATION

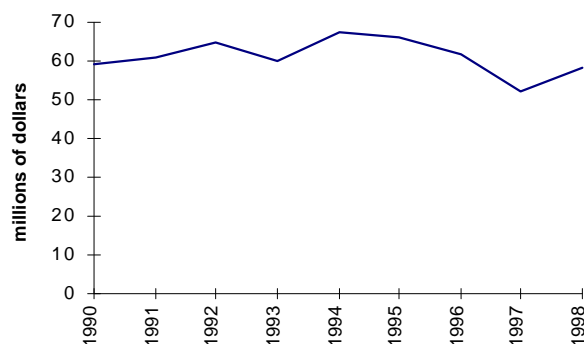
To develop a sense of Southwest Alaska's immediate prospects for aviation funding, all capital improvements in Southwest Alaska were culled from DOT&PF's Five-Year Aviation Spending Plan (1998-2003), and totaled. The results are shown in Table 19. In all, \$437 million worth of airport improvements are planned statewide for this five-year period. Of this total, \$61.7 million, or 14 percent, is programmed for airport improvement projects within the Southwest region. The extent to which the state is actually able to fund all of the improvements on this list within this timeframe depends on the level of AIP spending established in Congress. Congress authorized FY 99 AIP funding nationwide at the \$1.95 billion level; however, contracting authority was only authorized at \$1.205 billion, which is available for obligation through March 31, 1999. The remainder of the authorized funding must receive additional contract authority by Congress before it can be spent.

In terms of what level of transportation funding will be available over a longer time horizon, it is very difficult to predict, since the driving force, in Alaska's case, is the amount of funding provided by the federal government. Federal funding makes up about 65 percent of the Statewide Aviation Plan funding. In 1997, for example, the AIP allocation was \$52 million, and the Statewide Aviation Spending Plan included a total of \$79.4 million in funding for programmed projects. Projecting federal funding beyond 1999 is problematic. The overall funding level has been erratic, varying from a low of \$52 million in 1997, up to \$67.6 million, in 1994, a difference of fully 23 percent (Figure 12). In any case, over this period, the level of funding to Alaska has averaged \$61.6 million per year.

Table 19
FY 1997 and FY 1998 Aviation Spending Plan Data

Project	FY '98	FY '99	FY '00	FY '01	FY '02	APEB Score	Statewide Rank within Category
Primary Airfield Projects							
Cold Bay Airport Apron Reconstruction				\$ 4,000,000		104	7/49
Cold Bay CW RWY Resurf & SA Expan				\$ 4,000,000		97	13/49
Dillingham Runway Rehabilitation				\$ 3,500,000		84	22/49
King Salmon RWY Grooving	\$ 515,625					NR	
Kodiak RWY 10-28/Apron/TWY Rehab.*		\$ 5,400,000				104:89:79	
Unalaska Airport Safety Improvements					\$ 3,690,000	129	3/49
Primary Airport Buildings							
Kodiak Const. SRE/Sand Storage Bldg.		\$ 2,000,000				59	3/17
Primary Airport Equipment							
Dillingham SRE (Snowblower & Sweeper)	\$ 451,900					NR	
King Salmon ARFF Max Tracks				\$ 22,000		46	15/24
Kodiak ARFF Truck				\$ 450,000		72	5/24
Kodiak SRE (Broom)	\$ 146,346					NR	
Unalaska SRE (Truck with Plow)	\$ 144,785					NR	
Primary Airport Planning							
King Salmon Master Plan Update	\$ 308,284						
Kodiak Airport Master Plan Update		\$ 360,000					
Unalaska Airport Master Plan			\$ 350,000				
Non-Primary Airfield Projects							
Chignik Lagoon Interim Improvements			\$ 1,000,000			116	35/129
Chignik Lake RWY Resurf & Lighting					\$ 1,350,000	104	46/129
Clarks Point Airport Relocation			\$ 4,200,000			114	36/129
Karluk Airport Runway Reconstruction				\$ 2,500,000		111	39/129
Levelock Airport Relocation		\$ 3,000,000				133	17/129
Naknek CW RWY Relocation & Apron Const				\$ 3,500,000		107	44/129
New Stuyahok Airport Relocation			\$ 3,500,000			147	8/129
Pilot Point Airport Relocation		\$ 4,500,000				124	28/129
Sand Point RWY Rehabilitation & Extension				\$ 4,900,000		130	22/129
Non-Primary Buildings							
Chignik Lake SRE Building Replacement					\$ 250,000	69	1/18
Iliamna ARFF Building Expansion		\$ 1,000,000				NR	
Non-Primary Equipment							
Aleknagik SRE (Grader)			\$ 198,000			49	25/67
Atka SRE (Grader)		\$ 198,000				64	15/67
Iliamna SRE (Broom)					\$ 152,000	72	8/67
Iliamna SRE (Grader)	\$ 246,649					NR	
Nelson Lagoon SRE (Grader)	\$ 192,272					NR	
Port Heiden SRE (3 CY Loader)					\$ 155,000	40	35/67
Sand Point ARFF Truck				\$ 285,000		71	9/67
St. Paul SRE (Snowblower)	\$ 311,625					NR	
St. Paul SRE Acquisition (Grader)					\$ 266,000	69	12/67
St. Paul SRE Acquisition (Loader)					\$ 152,000	69	13/67
Togiak SRE (Grader)					\$ 220,000	33	43/67
Non-Primary Planning							
Akutan Airport Master Plan		\$ 350,000					
Ivanof Bay Airport Master Plan				\$ 350,000			
Ouzinkie Airport Master Plan		\$ 320,000					
Non-Primary Airfield Improvements							
Egegik RWY Extension & Resurfacing (LS)					\$ 3,000,000	100	54/129
Planning							
Adak Airport Master Plan (LS)		\$ 250,000					
REGIONAL SUM by FY	\$ 2,317,486	\$ 17,378,000	\$ 9,248,000	\$ 23,507,000	\$ 9,235,000		
GRAND TOTAL SW PROJECTS FY 1998-02	\$ 61,685,486						
GRAND TOTAL ALL ALASKA PROJECTS FY 1998-02	\$ 437,156,885						
PERCENTAGE OF 5-YEAR PLAN PROGRAMMED FOR SW	14.11%						

Figure 12
Variance in AIP Funding to Alaska Statewide



PORTS AND HARBORS

The marine fuel tax generates an average of over \$8 million dollars each year which is deposited in to the state's General Fund. Historically, the marine fuel tax has generated much more than that what the state spends on the port and harbor improvements. These revenues are not a dedicated source of funding for these facilities; however, in FY 1999 state funding for ports and harbors is significantly increasing with the an appropriation over \$28.2 million worth of deferred maintenance funding from the State Legislature. A large majority (72%) of the this funding is earmarked for projects in Southwest Alaska.

It is difficult to predict what the future will hold for port and harbor funding, as legislative annual appropriations have ranged from a low of \$1,669,500 million to the high in FY 1999. Similar to state aviation funding practices, funding for ports and harbor is directly linked to federal funding mechanisms. Prior to FY 1999, the Legislature focused on providing appropriations to serve as the state match for COE funding.

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